# IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

CIRBA INC. (d/b/a DENSIFY) and CIRBA IP, INC.,

Plaintiffs/Counter-Defendants,

v.

VMWARE, INC.,

Defendant/Counter-Plaintiff.

C.A. No. 19-742-GBW (CONSOLIDATED)

#### PUBLIC REDACTED VERSION

# VMWARE'S OMNIBUS OPENING BRIEF IN SUPPORT OF DISPOSITIVE MOTIONS UNDER RULES 56, 12(B)(1), AND 12(C) AND MOTIONS TO EXCLUDE EXPERT TESTIMONY

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### TABLE OF CONTENTS

				Page	
SUM	MARY	OF AI	RGUMENTS	1	
NAT	URE A	ND ST	AGE OF PROCEEDINGS	2	
SUM	MARY	JUDG	MENT # 1—NO TRADEMARK CLAIM	4	
I.	FAC'	TUAL	BACKGROUND	4	
II.	SUM	MARY	Y JUDGMENT ON TRADEMARK CLAIMS IS WARRANTED	4	
	A.		a Forfeited a New Trial on its Trademark Claims and Judge Stark ered a New Trial Only on Cirba's Patent Claims	4	
	B.	Cirba	a Cannot Assert a New Trademark Claim Based on A Registered Mark	4	
SUM	MARY	JUDG	GMENT # 2—NO WILLFUL INFRINGEMENT ('367 PATENT)	5	
I.	FAC'	TUAL	BACKGROUND	5	
II.	SUMMARY JUDGMENT ON NO WILLFULNESS IS WARRANTED6				
	A.	Pre-S	Suit, There Is No Evidence VMware Knew of the '367 Patent	6	
	B.	Post-	-Suit, There Is No Evidence VMware Acted Egregiously	7	
SUM	MARY	JUDG	GMENT # 3—NON-INFRINGEMENT ('687 PATENT)	8	
I.	FAC'	TUAL	BACKGROUND	9	
II.	SUMMARY JUDGMENT IS WARRANTED AS DRS DOES NOT INFRINGE THE '687 patent's EACH-TO-EACH LIMITATION10				
	A.	Each VM Must Be Evaluated Against Each Host Using Rule Sets Pertaining to Each of Technical, Business, and Workload Constraints			
	B.		Madisetti's Opening Report Failed to Address Judge Stark's "In Each e" Construction	12	
			Madisetti's Reply Report and Deposition Testimony Confirm that DRS s Not Infringe under Judge Stark's Construction	13	
		1.	Dr. Madisetti's Acknowledgement that DRS Skips Use of Rules Pertaining to Some Constraints Proves There Is No Infringement	13	
		2.	Dr. Madisetti's Deposition Testimony Confirms That His Theory Is Contrary to Judge Stark's Construction	14	
		3.	The '687 Patent Specification Confirms that Dr. Madisetti's New Theory Is Wrong	15	
SUM	MARY	JUDG	GMENT # 4—FAILURE TO MARK ('687 PATENT)	16	
I.			BACKGROUND		
II.			T RECOVER '687 PRE-SUIT DAMAGES BECAUSE IT CANNOT ARKING COMPLIANCE UNDER 35 U.S.C. § 287	17	

### **TABLE OF CONTENTS**

(continued)

Page

	A.		s Alleged Product Marking that Lacks a Website Address Is icient	17		
	B.	Marki	ng Software Product Literature Is Insufficient	18		
	C.		ecord Does Not, and Cannot, Show Substantial and Continuous ng from 2015 to Support Pre-Suit Damages	19		
SUMN	MARY J	IUDGN	MENT # 5—NO INDUCED INFRINGEMENT ('687 PATENT)	20		
I.	FACT	UAL B	ACKGROUND	20		
II.	CIRBA CANNOT PROVE INDUCEMENT OF THE '687 PATENT'S METHOD20					
	A.	No Ev	ridence that VMware's Customers Use the '687 Claimed Method	20		
	B.	Insuff	icient Evidence that VMware Had the Requisite Intent to Induce	23		
RULE	12(B)(	1) ANI	D 12(C) MOTION—INC.'S LACK OF STANDING ('492 PATENT)	24		
I.	FACT	UAL B	ACKGROUND	24		
II.	DISMISSAL BASED ON INC.'S LACK OF STANDING IS WARRANTED24					
	A.	Inc. S	hould Be Dismissed as to the '492 Patent for Lack of Standing	24		
		1.	Judge Stark's and the Federal Circuit's Prior Rulings Govern	24		
		2.	Inc. Has No Art. III Standing and No Statutory Right in '492 Patent	25		
	B.	The '4	92 Counterclaim Should be Dismissed as IP Was Improperly Joined	26		
RULE	12(C) I	MOTIC	N—FAILURE TO SATISFY § 101 ('687 AND '459 PATENTS)	26		
I.	FACT	UAL B	ACKGROUND	27		
	A.	Virtua	lization and Management of Virtual Machines and Hosts	27		
	B.	The '4	159 and '687 Patents	27		
II.	LEGA	L STA	NDARD	27		
III.			OF CIRBA'S INFRINGEMENT CLAIMS AS TO THE ED CLAIMS IS WARRANTED UNDER § 101 AND RULE 12(C)	28		
	A.		1 of the '459 Patent Is Representative of '459 Patent Asserted s	28		
	B.	The C	hallenged Claims of Both Patents Are Invalid Under Section 101	29		
		1.	Alice Step 1: The Challenged Claims Are Directed to an Abstract Idea	29		
			a. The Challenged Claims are directed to analyzing data, and reporting the results of the analysis	30		
			b. Analyzing data and reporting the results is an abstract idea	31		

### **TABLE OF CONTENTS**

(continued)

Page

			c. The challenged claims do not improve computer technology33	3
		2.	Alice Step 2: The Claims Do Not Recite an Inventive Concept35	5
MOTI	ON TO	EXCLU	JDE EXPERT TESTIMONY (MADISETTI)	7
I.	FACT	UAL B	ACKGROUND37	7
II.	Dr. Ma	disetti'	s Unreliable Opinions Should Be Excluded	7
	A.	Dr. Ma	disetti Fails to Apply or Misapplies Judge Stark's Constructions37	7
		1.	Dr. Madisetti Does Not Explain How VMware Uses "Rule Sets Pertaining to Each of Technical, Business and Workload Constraints" for Each VM-Host Evaluation	8
		2.	Dr. Madisetti's New Infringement Theory Contradicts the Court's Construction Requiring Use of Rule Sets Pertaining to <i>Each of</i> the Three Constraint Types	С
	B.	Dr. Ma	disetti Improperly Advances a New Construction of "Virtual Guest"42	2
	C.	Dr. Ma	disetti's Source Code Opinions Will Mislead and Confuse the Jury43	3
		1.	Dr. Madisetti Does Not Provide Any Reasons for His Disagreement with Dr. Nieh's Technical Interpretation of the Source Code	3
		2.	Dr. Madisetti's Conclusory Statements About the Source Code Are Objectively Wrong	5
MOTIO	ON TO	EXCLU	JDE EXPERT TESTIMONY (BERGMAN)46	5
I.	FACT	UAL B	ACKGROUND47	7
II.			SHOULD EXCLUDE MR. BERGMAN'S UNRELIABLE47	7
	A.		rgman Fails to Tie DRS Damages to Use of the '687 Patent's	7
	B.		ourt Should Preclude Mr. Bergman from Opining on DRS Damages ect Infringement of the '687 Patent48	3
	C.		orgman's DRS Damages Apportionment Analysis for the '687, '492, 1999 Patents Is Arbitrary and Speculative	9
	D.		orgman's vROps Damages Calculation of Lost Profits for the '687, and '459 Patents Is Improper50	С

### **TABLE OF AUTHORITIES**

Page(s) Cases A to Z Machining Serv., LLC v. Nat'l Storm Shelter, LLC, ACLU v. Mukasey, 534 F.3d 181 (3d Cir. 2008)......24 Affinity Labs of Tex., LLC v. DIRECTV, LLC, Alice Corp. v. CLS Bank Int'l, Am. Med. Sys. Inc. v. Med. Eng'g Corp., Amsted Indus. Inc. v. Buckeye Steel Castings Co., Ansell Healthcare Prods. LLC v. Reckitt Benckiser LLC, Apple Inc. v. Wi-LAN Inc., Arctic Cat Inc. v. Bombardier Rec. Prod. Inc., Arctic Cat Inc. v. Bombardier Recreational Prods., Inc., Arthur A. Collins, Inc. v. N. Telecom Ltd., Belden Techs., Inc. v. Superior Essex Commc'ns LP, Bilski v. Kappos, Bioverativ Inc. v. SL Behring LLC, 

Bos. Sci. Corp. v. Nevro Corp., 560 F. Supp. 3d 837 (D. Del. 2021)	6
BroadSoft, Inc. v. CallWave Commc'ns, LLC, 282 F. Supp. 3d 771 (D. Del. 2017)	29
BSG Tech LLC v. Buyseasons, Inc., 899 F.3d 1281 (Fed. Cir. 2018)	30
Cardiac Pacemakers, Inc. v. St. Jude Med. Inc., 576 F.3d 1348 (Fed. Cir. 2009)	47
ChargePoint, Inc. v. SemaConnect, Inc., 920 F.3d 759 (Fed. Cir. 2019), cert. denied, 140 S. Ct. 983 (2020)	30
Church & Dwight Co. v. Abbott Lab'ys, No. 05-2142, 2006 WL 3000201 (D.N.J. Oct. 20, 2006)	26
Commil USA, LLC v. Cisco Sys., Inc., 575 U.S. 638 (2015)	23
Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n, 776 F.3d 1343 (Fed. Cir. 2014)	28
Contour IP Holding, LLC v. GoPro, Inc., No. 17-CV-04738, 2020 WL 5106845 (N.D. Cal. Aug. 31, 2020)	19
Cradle IP, LLC v. Texas Instruments, Inc., 5 F. Supp. 3d 626 (D. Del. 2013), aff'd, 588 F. App'x 1000 (Fed. Cir. 2015)	23
Dynamic Data Techs., LLC v. Brightcove Inc., C.A. No. 19-1190-CFC, 2020 WL 4192613 (D. Del. July 21, 2020)	6
E-Pass Techs., Inc. v. 3Com Corp., 473 F.3d 1213 (Fed. Cir. 2007)	23
Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350 (Fed. Cir. 2016)	30, 31, 32
Evolved Wireless, LLC v. Apple Inc., C.A. No. 15-542-JFB-SRF, 2019 WL 8128550 (D. Del. Feb. 19, 2019)	8
Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prod. Grp., LLC, 879 F.3d 1332 (Fed. Cir. 2018)	50
FairWarning IP, LLC v. Iatric Sys., Inc., 839 F.3d 1089 (Fed. Cir. 2016)	31

Fast 101 PTY Ltd. v. Citigroup Inc., 424 F. Supp. 3d 385 (D. Del. 2020), aff'd 834 Fed. Appx. 591 (Fed Cir. 2020)29
Fujitsu Ltd. v. Netgear Inc., 620 F.3d 1321 (Fed. Cir. 2010)20
Hall v. Hall, 138 S. Ct. 1118 (2018)26
Halo Elecs., Inc. v. Pulse Elecs., Inc., 579 U.S. 93 (2016)
HZNP Meds. LLC v. Actavis Labs. UT, Inc., 940 F.3d 680 (Fed. Cir. 2019)
<i>iFIT Inc. v. Peloton Interactive, Inc.</i> , C.A. No. 21-507-RGA, 2022 WL 609605 (D. Del. Jan. 28, 2022)
In re Elbaum, No. 2021-1719, 2021 WL 3923280 (Fed. Cir. Sept. 2, 2021)
In re Gale, 856 Fed. App'x 887 (Fed. Cir. 2021)
In re Killian, 45 F. 4th 1373 (Fed. Cir. 2022)
In re TLI Commc'ns LLC Patent Litig., 823 F.3d 607 (Fed. Cir. 2016)
Inline Connection Corp. v. AOL Time Warner Inc., 465 F. Supp. 2d 312 (D. Del. 2006)
Intell. Tech LLC v. Zebra Techs. Corp., No. 6:19-cv-00628, 2022 WL 1608014 (W.D. Tex. May 20, 2022), reconsideration denied, 2022 WL 3088572 (W.D. Tex. Aug. 3, 2022)
Intell. Ventures I LLC v. Capital One Fin. Corp., 850 F.3d 1332 (Fed. Cir. 2017)31
Intell. Ventures I LLC v. Symantec Corp., 234 F. Supp. 3d 601 (D. Del. 2017), aff'd, 725 F. App'x 976 (Fed. Cir. 2018)
Interval Licensing LLC v. AOL, Inc., 896 F.3d 1335 (Fed. Cir. 2018)
Intuitive Surgical, Inc. v. Auris Health, Inc., 549 F. Supp. 3d 362 (D. Del. 2021)

694 F.3d 51 (Fed. Cir. 2012)	49, 50
Lesende v. Borrero, 752 F.3d 324 (3d Cir. 2014)	4
Limelight Networks, Inc. v. Akamai Techs., Inc., 134 S. Ct. 2111 (2014)	20
Liquid Dynamics Corp. v. Vaughan Co., 449 F.3d 1209 (Fed. Cir. 2006)	42
McKesson Automation, Inc. v. Swisslog Italia S.P.A., 712 F. Supp. 2d 283 (D. Del. 2010)	19
Metrologic Instruments, Inc. v. PSC, Inc., No. 99-cv-4876, 2004 WL 2851955 (D.N.J. Dec. 13, 2004)	19
Minerva Surgical, Inc. v. Hologic, Inc., C.A. No. 18-217-JFB-SRF, 2021 WL 3048447 (D. Del. July 20, 2021)	39, 40
NexStep, Inc. v. Comcast Cable Commc'ns, LLC, C.A. No. 19-1031-RGA-SRF, 2021 WL 4077778 (D. Del. Aug. 20, 2021) report and recommendation adopted, in relevant part, 2022 WL 911252 (D. Del. Mar. 29, 2022)	8
Niazi Licensing Corp. v. St. Jude Med. S.C., Inc., 30 F.4th 1339 (Fed. Cir. 2022)	47, 48
Novozymes A/S v. Genencor Int'l, Inc., 474 F. Supp. 2d 592 (D. Del. 2007)	50
Packet Intelligence LLC v. NetScout Sys., Inc., 965 F.3d 1299 (Fed. Cir. 2020)	48, 49
Parallel Networks Licensing, LLC v. Int'l Bus. Machines Corp., C.A. No. 13-2072-KAJ, 2017 WL 1405155 (D. Del. Apr. 17, 2017)	46, 49
Parallel Networks Licensing, LLC v. Microsoft Corp., 777 F. App'x 489 (Fed. Cir. 2019)	22
Personalized User Model, L.L.P. v. Google Inc., No. CV 09-525-LPS, 2014 WL 807736 (D. Del. Feb. 27, 2014)	42, 43
PersonalWeb Techs. LLC v. Google LLC, 8 F 4th 1310 (Fed. Cir. 2021)	28 34

Poly-Am., L.P. v. GSE Lining Tech., Inc., 383 F.3d 1303 (Fed. Cir. 2004)	50
Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., 843 F.3d 1315 (Fed. Cir. 2016)	23
Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., 904 F.3d 965 (Fed. Cir. 2018)	49
RecogniCorp, LLC v. Nintendo Co., Ltd., 855 F.3d 1322 (Fed. Cir. 2017)	33
Rite-Hite Corp. v. Kelley Co., Inc., 56 F.3d 1538 (Fed. Cir. 1995)	50
Rondevoo Techs., LLC v. Aernos, Inc., No. 19-cv-680, 2020 WL 1441116 (D. Del. Mar. 24, 2020)	33
SAP Am., Inc. v. InvestPic, LLC, 898 F.3d 1161 (Fed. Cir. 2018)	31
Schreiber Foods, Inc. v. Beatrice Cheese, Inc., 402 F.3d 1198 (Fed. Cir. 2005)	26
Sicom Sys., Ltd. v. Agilent Tech., Inc., 427 F.3d 971 (Fed. Cir. 2005)	25
Siemens Mobility Inc. v. Westinghouse Air Brake Techs. Corp., C.A. No. 16-284-LPS-CJB, 2018 WL 7893901 (D. Del. Dec. 17, 2018)	17, 18
SPH Am., LLC v. Huawei Techs., Co., No. 13-cv-2323, 2017 WL 1331920 (S.D. Cal. Apr. 10, 2017)	26
Sprint Comme'ns Co. L.P. v. Cox Comme'ns Inc., 302 F. Supp. 3d 597 (D. Del. 2017)	42, 43
SRI Int'l. Inc. v. Internet Sec. Sys., Inc., 647 F. Supp. 2d 323 (D. Del. 2009)	22
Sviluppo Dell'Elettronica S.p.A. v. Rhapsopy Int'l Inc., No. 18-69-MN, 2019 WL 2491898 (D. Del. June 14, 2019)	36
SynKloud Techs., LLC v. HP Inc., 490 F. Supp. 3d 806 (D. Del. 2020)	34
T.N. Incorporation, Ltd. v. Fid. Nat'l Info. Servs., Inc., No. CV 18-5552, 2021 WI, 5980048 (F.D. Pa. Dec. 17, 2021)	44

TechSearch, L.L.C. v. Intel Corp., 286 F.3d 1360 (Fed. Cir. 2002)	8
TecSec, Inc. v. Adobe Inc., 978 F.3d 1278 (Fed. Cir. 2020)	49
Trading Techs. Int'l, Inc. v. IBG LLC, 921 F.3d 1378 (Fed. Cir. 2019)	31
U.S. Ethernet Innovations, LLC v. Acer, Inc., No. C 10-3724 CW, 2013 WL 4456161 (N.D. Cal. Aug. 16, 2013)	18
Warsaw Orthopedic, Inc. v. NuVasive, Inc., 778 F.3d 1365 (Fed. Cir. 2015)	50
WBIP, LLC v. Kohler Co., 829 F.3d 1317 (Fed. Cir. 2016)	6
WiTricity Corp. v. Momentum Dynamics Corp., 563 F. Supp. 3d 309 (D. Del. 2021)	33
Yu v. Apple Inc., 1 F. 4th 1040, 1045 (Fed. Cir. 2021)	35
Zadro Prod., Inc. v. Feit Elec. Co., Inc., 514 F. Supp. 3d 1209 (C.D. Cal. 2021)	18, 19
Statutes and Other Authorities	
35 U.S.C.  § 101	1, 24, 25, 26
Fed. R. Civ. Pro.  15(d)	1, 24, 25 28 passim
H. Judiciary Comm., America Invents Act, H.R. Rep. No. 112-98, pt. 1 (2011)	
TI. JUGICIALY COHIII. AHICHCA HIVCHS ACL. FLK. KCD. NO. 112-98. DL. 1 (2011)	

### **TABLE OF ABBREVEATIONS**

Cirba Inc.	"Inc."
Cirba IP, Inc.	"IP"
U.S. Patent No. 8,209,687	"the '687 patent" or "'687"
U.S. Patent No. 9,654,367	"the '367 patent" or "'367"
U.S. Patent No. 10,523,492	"the '492 patent" or "'492"
U.S. Patent No. 10,951,459	"the '459 patent" or "'459"
C.A. No. 19-cv-742, D. Del.	"the 742 Action"
C.A. No. 20-cv-272, D. Del (previously Case No. 19-cv-	"41 - 272 A -4:?"
1334, E.D. Va.).	"the 272 Action"
Transcript of January 2020 trial (D.I. 587 – D.I. 597)	"TT"
Distributed Resource Scheduler	"DRS"
vRealize Operations	"vROps"
Virtual Machine	"VM"
"Assignment" agreement between Inc. and IP executed	"Assignment Agreement"
on March 21, 2016	
"License Agreement" between Inc. and IP executed on	"License Agreement"
March 21, 2016	
"Amendment to License Agreement" between Inc. and	"License Amendment"
IP executed on March 23, 2021	
Declaration of Yue Li in Support of VMware's	"Li Decl."
Dispositive Motions under Rules 56, 12(b)(1), and 12(c)	
and Motions to Exclude Expert Testimony, filed	
concurrently	
Exhibits attached to the concurrently filed Li Declaration	"Ex"
(unless otherwise noted)	
Concise Statement of Undisputed Facts for Summary	"SUF1"
Judgment of No Trademark Claims	
Concise Statement of Undisputed Facts for Summary	"SUF2"
Judgment of No Willfulness	
Concise Statement of Undisputed Facts for Summary	"SUF3"
Judgment of Non-infringement	
Concise Statement of Undisputed Facts for Summary	"SUF4"
Judgment of Failure to Mark	
Concise Statement of Undisputed Facts for Summary	"SUF5"
Judgment of No Induced Infringement	

#### **SUMMARY OF ARGUMENTS**

- 1. The Court should grant summary judgment of no trademark claim because

  (i) Cirba forfeited a new trial on its trademark claims, (ii) Judge Stark ordered a new trial only on

  Cirba's patent claims, and (iii) Cirba has never pled a cause of action based on a registered mark.
- 2. The Court should grant summary judgment of no willful infringement of the '367 patent because there is no evidence that VMware (i) had pre-suit knowledge of the '367 patent or (ii) acted egregiously in allegedly infringing that patent.
- 3. The Court should grant summary judgment of non-infringement of the '687 patent because (i) the asserted claims do not allow for skipping use of rules pertaining to technical, business, and workload constraints when evaluating VMs against hosts and (ii) VMware's DRS undisputedly skips use of certain such rules when evaluating VMs against hosts.
- 4. The Court should grant summary judgment of no pre-suit damages for the '687 patent because there is (i) insufficient evidence of product marking, (ii) insufficient product literature marking, and (iii) no evidence showing substantial and continuous marking from 2015.
- 5. The Court should grant summary judgment of no induced infringement of the '687 patent because there is (i) no evidence that VMware's customers use the '687 patent's claimed methods and (ii) insufficient evidence that VMware had the intent to induce infringement.
- 6. The Court should dismiss Cirba's '492 patent counterclaim under Rules 12(b)(1) and 12(c) because (i) Inc. lacks Article III standing and any right under 35 U.S.C. § 281 and (ii) IP was improperly joined.
- 7. The Court should dismiss the asserted claims of the '459 patent and claim 3 of the '687 patent under Rule 12(c) and Section 101 because the claims (i) are directed to the abstract idea of analyzing data and reporting results and (ii) lack an inventive concept.
  - 8. The Court should exclude Cirba's expert Dr. Madisetti's infringement opinions

because he (i) fails to apply Judge Stark's claim constructions, (ii) advances a new claim construction, and (iii) provides misleading and confusing source code analysis.

9. The Court should exclude Cirba's expert Mr. Bergman's damages opinions because he (i) fails to tie damages to use of the '687 method claims, (ii) does not offer a separate analysis for direct infringement of the '687 patent, (iii) provides an unreliable and speculative apportionment analysis, and (iv) calculates an improper award of lost profits.

### NATURE AND STAGE OF PROCEEDINGS

Trial on Cirba's Patent and Trademark Infringement Claims. Cirba sued VMware for patent and trademark infringement in April 2019. It moved for a preliminary injunction against VMware's vROps 7. (D.I. 12 at 1.) Judge Stark denied Cirba's motion, as he was "not persuaded that vROps with DRS me[t] all the claim limitations" or that Cirba would "not survive" or "suffer some other form of irreparable harm" absent an junction. (D.I. 138 at 193:25-194:1, 196:18-197:3.) VMware counterclaimed for infringement of four patents. (D.I. 150.) Judge Stark set an expedited trial and severed VMware's counterclaims. (D.I. 155, 174, 194.)

A jury found VMware infringed Cirba's two patents but not its trademark. For the '687 patent, the products found to infringe were: (i) vSphere with DRS; (ii) vROps with DRS; and (iii) VMC on AWS with DRS 2.0. (D.I. 550 at 1; *see also* TT 1723:3-1724:24.) For the '367 patent, the functionality at issue was vROps's user interface "dashboard." (D.I. 68 ¶¶ 86-87.)

Post-Trial Rulings. Cirba sought to permanently enjoin a non-existent product (vSphere 7 with compute policies), speculating that this product would cause enormous harm. (D.I. 605 at 1, 7; see also D.I. 616 ¶¶ 52-65.) Judge Stark observed it was "striking to again hear" the same arguments. (D.I. 758 at 65:4-13.)

VMware moved to dismiss Inc. as lacking standing. (D.I. 712 at 25.) Judge Stark dismissed Inc. in June 2020, holding it was "a bare licensee" that "lack[ed] any right to exclude."

(D.I. 752 at 8.) Cirba sought reconsideration (D.I. 756 at 4-7), which Judge Stark also rejected. (D.I. 946 at 3-6.) Judge Stark also ruled that Inc.'s lack of standing, the inclusion of Inc.-related evidence at trial, Cirba's "at best, weak" infringement evidence, and other factors warranted a new trial. (*Id.* at 7-14.) Judge Stark noted that the record did not show VMware "acted egregiously." (D.I. 575 at 1.) Judge Stark left undecided other issues VMware raised post-trial, including non-infringement and invalidity. (*Id.* at 17; D.I. 994 at 47:11-48:1; *see also* D.I. 712.) He denied Cirba's permanent injunction motion as moot. (D.I. 946 at 17.)

Denials of Certification and Mandamus. In January 2021, Cirba moved to certify Judge Stark's standing ruling for interlocutory appeal. (D.I. 961 at 1-3.) Judge Stark denied certification. (D.I. 994 at 42:6-50:10.) The Federal Circuit denied Inc.'s petition for a writ of mandamus. (D.I. 1045 at 9, 12.) Before Judge Stark and the Federal Circuit, Cirba stressed it could not fix standing. (D.I. 994 at 9:20-24; D.I. 1080 at 17:23-31.) Nonetheless, Inc. and IP amended their license to try to give Inc. exclusive rights in March 2021—six months before Inc. represented to the Federal Circuit that it had not attempted to "fix it." (D.I. 1239 at 9-10.)

Case Consolidation. VMware sued Inc. for infringement of four additional patents in Virginia on October 21, 2019. The Virginia case was transferred to Delaware on February 25, 2020. Cirba counterclaimed for infringement of the '492 and '459 patents on March 23, 2020 and May 3, 2021, respectively. (272 Action, D.I. 75; D.I. 992.) The Court consolidated the Delaware and Virginia actions and ordered a single trial. (D.I. 946 at 18.) This action currently involves Cirba's four patents and, after case narrowing, VMware's three patents. (D.I. 1364 Exs. 1-2.)

<u>Cirba's Attempt to Relitigate Standing and Injunction Issues</u>. On April 20, 2022, Inc. amalgamated with IP. (D.I. 1239 at 10.) Cirba again sought reconsideration of Judge Stark's standing ruling and a preliminary injunction. (*Id.* at 20.) Cirba also moved to modify the case

caption to reflect the amalgamation. (D.I. 1327.) The Court denied that motion, noting that it "reads as a veiled attempt to reassert the substantive rights of Inc.—who was dismissed for lack of Article III standing." (D.I. 1396 at 11.)

### SUMMARY JUDGMENT # 1—NO TRADEMARK CLAIM¹

The jury rejected Cirba's trademark claims, and Cirba did not challenge that verdict. Cirba nonetheless intends to assert those claims in the upcoming trial. (D.I. 1407 at 1 n.2.)

VMware seeks an order confirming that the new trial excludes them.

#### I. FACTUAL BACKGROUND

The jury found VMware not liable for trademark infringement. (SUF1 ¶¶ 1, 6; D.I. 550 at 5.) Judge Stark entered judgment in VMware's favor. (SUF1 ¶ 7; D.I. 557 at 2.) Cirba never sought a new trial on those claims. (SUF1 ¶ 9.)

### II. SUMMARY JUDGMENT ON TRADEMARK CLAIMS IS WARRANTED

A. Cirba Forfeited a New Trial on its Trademark Claims and Judge Stark Ordered a New Trial Only on Cirba's Patent Claims

Cirba contends that it can again press its trademark claims at the upcoming trial. (D.I. 1406 at 6:7-7:7.) But by failing to request a new trial, Cirba forfeited any such right. (SUF1 ¶ 8.) *See Lesende v. Borrero*, 752 F.3d 324, 334 (3d Cir. 2014). Judge Stark's order made clear that he granted a new trial only on Cirba's patent claims. (D.I. 946 at 7.) Likewise, his subsequent scheduling order did not mention Cirba's trademark claims. (D.I. 1003 at 1-2.)

### B. Cirba Cannot Assert a New Trademark Claim Based on A Registered Mark

Although Cirba asserts that its trademark is now registered (D.I. 1406 at 6:7-7:15), it has never pled a cause of action based on a registered mark. (SUF1 ¶¶ 1-5; see also D.I. 1406 at 6:9-

4

<sup>&</sup>lt;sup>1</sup> Per the Court's direction, VMware has styled this motion as one under Rule 56 (D.I. 1406 at 7:12-14). VMware believes, however, that it is proper to consider this motion under Rule 12(c).

19 (Cirba explaining differences between its original common law trademark claim and new trademark claim).) The purported "Densify" mark was registered on April 27, 2021 (Ex. 5), but Cirba never sought to supplement its complaint to allege infringement of a registered mark. (SUF ¶¶ 4-5.) Fed. R. Civ. Pro. 15(d). The deadline to do so passed 19 months ago. (D.I. 1407 ¶ 3.) Accordingly, Cirba simply has no trademark claim to assert at the upcoming trial.

### **SUMMARY JUDGMENT # 2—NO WILLFUL INFRINGEMENT ('367 PATENT)**

As Judge Stark noted after the first trial, "it does not seem to me that VMware has been shown to have acted egregiously." (D.I. 575 at 1.) And as he reiterated when granting a new trial, "it seems inevitable that IP's evidence of willfulness, and egregiousness, with respect to the '687 and '367 patents will be even weaker than what is currently in the record," and that "it might be appropriate for the Court to make a decision prior to the new trial whether it would exercise its discretion to enhance damages—and, if it would not, to then grant summary judgment to VMware and not retry willfulness." (D.I. 946 at 16-17 (capitalization modified).)

Willful infringement requires "egregious" conduct that is "willful, wanton, malicious, badfaith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 579 U.S. 93, 103-04 (2016). There is no evidence that VMware had pre-suit knowledge of the '367 patent. Nor is there evidence of egregious post-suit conduct. The undisputed facts show the opposite: VMware's allegedly infringing "dashboard" (1) predated the '367 patent's issuance, (2) was deprecated—eliminating it as the default user experience—before this litigation gave VMware awareness of the patent, and (3) was removed entirely before trial. (SUF2 ¶ 2, 5-7.)

#### I. FACTUAL BACKGROUND

In February 2016, VMware introduced the accused "Workload Utilization" dashboard in vROps 6.2. (SUF2 ¶ 5; Ex. 8.) In April 2018—one year before this lawsuit—VMware removed

the accused dashboard as a default. (SUF2 ¶ 6; Ex. 9 at 1421:20-1423:14.) In November 2019, VMware removed the accused dashboard entirely. (SUF2 ¶ 7; Ex. 9 at 896:18-897:6.) VMware had no knowledge of the '367 patent before this lawsuit. (SUF2 ¶¶ 1-4; D.I. 672 at 15 n.12.)

### II. SUMMARY JUDGMENT ON NO WILLFULNESS IS WARRANTED

### A. Pre-Suit, There Is No Evidence VMware Knew of the '367 Patent

"Knowledge of the patent alleged to be willfully infringed continues to be a prerequisite to enhanced damages." *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1341 (Fed. Cir. 2016); *accord Bos. Sci. Corp. v. Nevro Corp.*, 560 F. Supp. 3d 837, 844 (D. Del. 2021). Indeed, more than knowledge of the asserted patent is required; knowledge of infringement must be shown. *Dynamic Data Techs., LLC v. Brightcove Inc.*, C.A. No. 19-1190-CFC, 2020 WL 4192613, at \*5 (D. Del. July 21, 2020) (requiring "knowledge of infringement" of patents); *Intell. Ventures I LLC v. Symantec Corp.*, 234 F. Supp. 3d 601, 611-12 (D. Del. 2017), *aff'd*, 725 F. App'x 976 (Fed. Cir. 2018) (knowledge of patent number insufficient to show willfulness).

Cirba concedes "there was no direct evidence of pre-suit knowledge of the '367 patent." (SUF2 ¶¶ 3-4; D.I. 672 at 15 n.12.) Instead, Cirba relies on 2015 presentations that allegedly show VMware's knowledge of the '367 patent *application*, since the '367 patent did not issue until 2017. (*See* D.I. 672 at 15 n.12 (citing Ex. 13 at 4, Ex. 14 at 5, Ex. 15 at 4).) But these presentations, at best, state generally "7 US patents held with 7 US patents pending" (*id.*) and make no mention of that specific application.

Regardless, knowledge of a patent application cannot support a willfulness finding. *See iFIT Inc. v. Peloton Interactive, Inc.*, C.A. No. 21-507-RGA, 2022 WL 609605, at \*2 (D. Del. Jan. 28, 2022) (knowledge of application is not enough to establish willfulness); *Bioverativ Inc. v. SL Behring LLC*, C.A. No. 17-914-RGA, 2020 WL 1332921, at \*2 (D. Del. Mar 23, 2020) (no willful infringement before patent is issued).

Nor does Cirba's purported copying evidence show willfulness. (*See* D.I. 672 at 15 n.12.) "Copying a product which is not protected by the patent laws is not illegal and does not constitute infringement." *Bioverativ*, 2020 WL 1332921, at \*3. Per Cirba, VMware's alleged copying occurred before the '367 patent issued. (SUF2 ¶ 5; Ex. 8 (showing dashboard release date); Ex. 9 at 1421:3-19 (Mr. Prathuri testifying to release date), 424:20-426:8.)

Because Cirba's patent rights did not yet exist, VMware's conduct could not have been "egregious" or "deliberate." *Ansell Healthcare Prods. LLC v. Reckitt Benckiser LLC*, C.A. No. 15-915-RGA, 2018 WL 620968, at \*8 (D. Del. Jan. 30, 2018) (no willfulness due to lack of "knowledge of the actor at the time of the challenged conduct"); *see also Bioverativ*, 2020 WL 1332921, at \*3 (finding "no colorable willfulness case" as "no evidence of anything occurring between" patent issuance and lawsuit filing). Moreover, VMware deprecated the allegedly infringing dashboard before it became aware of the '367 patent. (SUF2 ¶ 6; Ex. 9 at 1421:20-1423:14 (Mr. Prathuri testifying to removal); Ex. 10 at DDX-6.8 (removal timeline).)

As any alleged pre-suit copying is irrelevant and Cirba points to no evidence of post-suit copying, summary judgment is warranted. *See Ansell*, 2018 WL 620968, at \*6-8 (granting summary judgment of non-willfulness where conduct pre-dated patent issuance).

### B. Post-Suit, There Is No Evidence VMware Acted Egregiously

VMware's conduct post-suit—*i.e.*, the period when VMware had knowledge of the '367 patent—was not egregious, deliberate, or wanton. *See Halo*, 579 U.S. at 105. Far from perpetuating its alleged infringement, VMware removed the accused feature entirely after Cirba sued and before trial. (SUF2 ¶ 7; Ex. 9 at 1423:4-14 (Mr. Prathuri testifying to dashboard's complete removal), 896:18-897:14 (Mr. Prathuri testifying to reasons for removal); Ex. 12 at VMW0146815 ("Workload Utilization widget has been discontinued").)

Removing an accused feature, as VMware did, is the opposite of the egregious conduct

required for willfulness. *Cf. Evolved Wireless, LLC v. Apple Inc.*, C.A. No. 15-542-JFB-SRF, 2019 WL 8128550, at \*4 (D. Del. Feb. 19, 2019) (granting summary judgment of no willfulness, despite defendant not adopting non-infringing alternatives); *NexStep, Inc. v. Comcast Cable Commc'ns, LLC*, C.A. No. 19-1031-RGA-SRF, 2021 WL 4077778, at \*14 (D. Del. Aug. 20, 2021) (failure to adopt non-infringing alternative not sufficient to support willfulness), *report and recommendation adopted, in relevant part*, 2022 WL 911252 (D. Del. Mar. 29, 2022) & Order, D.I. 369 at 2 n.1 (Ex. 16); *Intell. Ventures I*, 234 F. Supp. 3d at 612 (rejecting "continu[ing] to update, produce, and sell" accused product post-suit as evidence of willfulness).

Because Cirba cannot show egregious, wanton infringement, summary judgment of no willful infringement of the '367 patent should be granted. *See Evolved Wireless*, 2019 WL 8128550, at \*3 ("Egregiousness cannot be found in 'typical' or 'garden-variety' infringement.").

### SUMMARY JUDGMENT #3—NON-INFRINGEMENT ('687 PATENT)

All of Cirba's '687 infringement theories hinge on VMware's DRS feature. But no reasonable jury could find that DRS evaluates *each* virtual guest (or VM) against *each* virtual host *in each case* using rule sets pertaining to *each of* technical, business, and workload constraints, as the claims require. Judge Stark identified Cirba's "at best, weak" infringement evidence as one of the reasons for granting a new trial. (D.I. 946 at 11.)

Summary judgment is proper "where the patent owner's proof is deficient in meeting an essential part of the legal standard for infringement." *TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1369 (Fed. Cir. 2002). To prove infringement, Cirba must show that the accused products, properly configured, perform all limitations of claims 3 and 7 of the '687 patent. Although Cirba accuses two different DRS versions (1.0 and 2.0), its infringement theory for both is the same.

There is no dispute that, in any virtual environment, DRS skips the software functions that Cirba argues correspond to rules pertaining to workload constraints when evaluating a VM

against an incompatible host. (SUF3 ¶¶ 5-6, 11-15; Ex. 20 ¶ 39.) Based on Judge Stark's claim construction, this skipping bars infringement.

#### I. FACTUAL BACKGROUND

Both asserted claims 3 and 7 of the '687 patent require "evaluating *each* virtual guest against *each* virtual host and other virtual guests using one or more rule sets pertaining to said technical, business, and workload constraints[.]" (SUF3 ¶ 1, 2; Ex. 1, claims 3 and 7 (emphasis added).) Cirba had to add this "Each-to-Each Limitation" to the claims to secure allowance over prior art—a VMware patent—that taught evaluations for more limited "incremental placements." (Ex. 18 at DSYCC737549-50, DSYCC737556-57.) Judge Stark recognized that this limitation is strict, noting that it could be avoided, for example, by simply "adding a physical machine to a virtual environment solely for the purpose of excluding that single physical machine from" the claimed evaluations. (D.I. 356 at 6; Ex. 26 at 65:4-18 (noting that a "computer in the closet" would avoid infringement.) And more recently, he found that each such evaluation must use rules for each of the three constraint types, without skipping any. (D.I. 1160 at 5, 9.) Judge Stark emphasized this by including "*in each case*" and "*each of*" in his construction:

evaluating each virtual machine against each virtual host and other virtual machines, *in each case* using one or more rule sets pertaining to *each of* technical, business, and workload constraints.

(*Id.* at 5 (emphasis added); see also id. at 9.)

Cirba's technical expert Dr. Madisetti agreed that the claims do not allow skipping.

(SUF3 ¶¶ 3, 4.) But he also conceded that the accused DRS software finds shortcuts and skips certain steps during such evaluations. (SUF3 ¶¶ 5, 6.) Dr. Madisetti admitted that DRS may skip using a rule for a business or workload constraint if use of a rule for a technical constraint indicates failure. (SUF3 ¶¶ 9, 10; Ex. 21 at 180:7-18.) But even though the rules pertaining to business or workload constraints are not used, his view is that all three constraint types are still

evaluated. (*Id.*) This is contrary to the claim language and Judge Stark's construction requiring that "each of" technical, business, and workload rules be actually *used* in each such evaluation.

# II. SUMMARY JUDGMENT IS WARRANTED AS DRS DOES NOT INFRINGE THE '687 PATENT'S EACH-TO-EACH LIMITATION

A. Each VM Must Be Evaluated Against Each Host Using Rule Sets Pertaining to Each of Technical, Business, and Workload Constraints.

The Each-to-Each Limitation of claims 3 and 7 requires "evaluating each virtual machine against each virtual host and other virtual machines, *in each case* using one or more rule sets pertaining to *each of* technical, business, and workload constraints." (D.I. 1160 at 5 (emphasis added).) As Judge Stark's construction makes clear, this limitation does not allow for skipping the use of rules pertaining to any of the three constraint types when evaluating VMs against hosts.

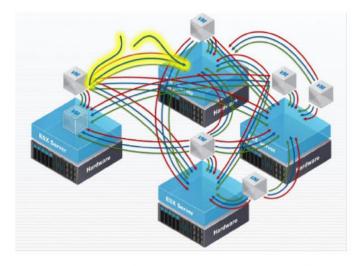
In his claim construction order, Judge Stark recognized that "a new dispute . . . [had] emerged involving whether each VM *must be evaluated using rules for all three constraints*." (*Id.* at 5-6 (emphasis added).) He stated that VMware's proposed construction required that "each evaluation . . . use one or more rules for each of the three constraints, such that the claim limitation would not be met where an evaluation *skips a rule pertaining to even one of the three constraints*." (*Id.* at 8 (citing VMware briefing) (emphasis added).) As Judge Stark noted, Cirba "conceded" this construction at the *Markman* hearing:

At the claim construction hearing, Densify conceded this point, stating that, "[o]f course, each and every evaluation must have rules pertaining to each of the three constraints." ([Ex. 23] Tr. at 43) It further clarified its position that the claim limitation is not met if there is simply one or more rule sets "in the cloud" or in aggregate that pertain to each of the three constraints; rather, *each evaluation* requires one or more rule sets for each of the three constraints.

#### (D.I. 1160 at 9 (emphasis in original).)

Judge Stark emphasized that Cirba "resolv[ed] any . . . doubt about its position" by expressing its "agree[ment] with Dr. Madisetti's testimony at trial that an evaluation lacking even

one constraint would not infringe." (*Id.* at 9 (citing Ex. 23 at 43-44); *accord* Ex. 23 at 43:8-46:12 (Cirba's counsel assuring Judge Stark that failure to evaluate a single rule instance, as shown in "spiderweb" graphic, meant no infringement).) To reinforce this point, Judge Stark cited the spiderweb graphic VMware used to cross-examine Dr. Madisetti at the January 2020 trial:



(Id. at 9 (citing Ex. 22 at DDX-3.3, above); Ex. 19 at 614:24-618:20.)

This graphic depicts an environment with multiple VMs (the small gray "VM" boxes) and multiple hosts (the large "ESX Server" or "hardware" boxes). VM-to-host evaluations use rules pertaining to each of technical, business, and workload constraints, as represented by the red, blue, and green arrows. (Ex. 19 at 615:7-25.) At the January 2020 trial, Dr. Madisetti agreed that, to meet the Each-to-Each Limitation, no rule for any of the three constraint types can be skipped. For example, in the graphic above, if the highlighted rule pertaining to a VM-host business constraint is not used (*i.e.*, skipped), there is no infringement:

- Q. In this hypothetical DRS cluster, the virtual machine over on the left of the illustration is not evaluated against the hardware at the top of the illustration for a business constraint; and in that circumstance, there is no infringement of the existing virtualized environment. That existing virtualized environment is not practicing the method of the '687 patent. True, sir?
- A: Yes. If the business constraint is not evaluated for this particular virtualized environment, it would not satisfy the claim.

(*Id.* at 618:10-20.)

As Cirba's own statements and Judge Stark's ruling confirm, Cirba made two critical concessions at the 2021 Markman hearing: (1) "each evaluation must use one or more rules for each of the three constraints, such that the claim limitation would not be met where an evaluation skips a rule pertaining to even one of the three constraints" and (2) the "spiderweb" graphic depicts non-infringement. (D.I. 1160 at 8-9; *see also* SUF3 ¶¶ 11, 12.) Consistent with and to "reflect[] this understanding," Judge Stark included the phrases "in each case" and "each of" in his construction. (D.I. 1160 at 5, 9.)

# B. Dr. Madisetti's Opening Report Failed to Address Judge Stark's "In Each Case" Construction

Dr. Madisetti's 2022 Opening Report includes two "volumes" addressing the '687 patent. Volume 1 duplicates his 2019 expert report and addresses only products released before the 2020 trial. Because Dr. Madisetti prepared this report before Judge Stark's 2022 construction of the Each-to-Each Limitation, Volume 1 does not address Judge Stark's "in each case" and "each of" constructions, even though, as Judge Stark explained, he was resolving a dispute that arose post-trial and hence after Dr. Madisetti's 2019 report. (See Ex. 27 ¶¶ 74-75; D.I. 1160 at 5-6.) Instead, Dr. Madisetti's infringement theory in Volume 1 continues to follow Cirba's rejected claim construction position. Volume 2 purportedly addresses products postdating the 2020 trial. While Volume 2 acknowledges Judge Stark's 2022 construction, it does not apply it. Nowhere in Volume 2 does Dr. Madisetti explain how the accused products meet the Each-to-Each Limitation under that construction. (See generally Ex. 28.)

As Dr. Madisetti's Opening Report fails to address the Court's construction,<sup>2</sup> Cirba cannot

<sup>&</sup>lt;sup>2</sup> VMware concurrently is moving to exclude Dr. Madisetti's opinions due to this failure. (*See Madisetti Daubert Motion*, *infra* at 37.)

carry its burden on infringement. Summary judgment is proper on this basis alone.

# C. Dr. Madisetti's Reply Report and Deposition Testimony Confirm that DRS Does Not Infringe under Judge Stark's Construction

VMware's expert Dr. Jason Nieh noted Dr. Madisetti's failure to address Judge Stark's 2022 construction in his rebuttal report. (Ex. 25 ¶¶ 95, 97.) Dr. Nieh explained why that construction means DRS does not infringe, as certain rules are skipped and not used. (*Id.* ¶¶ 97, 175; *see also* SUF3 ¶¶ 13-17.) In his 2022 Reply Report, Dr. Madisetti offered a new theory to account for this skipping and elaborated on it at his deposition. (Ex. 20 ¶ 39; Ex. 21 at 175:23-187:6.) While Dr. Madisetti's new *theory* should be struck as not disclosed in Cirba's final contentions or his opening report,<sup>3</sup> his factual admissions confirm DRS does not infringe.

# 1. Dr. Madisetti's Acknowledgement that DRS Skips Use of Rules Pertaining to Some Constraints Proves There Is No Infringement

In his 2019 and 2022 rebuttal reports, Dr. Nieh explained how DRS skips certain steps when evaluating VMs against some hosts. (Ex. 24 ¶¶ 130-131, 135-136; Ex. 25 ¶¶ 95-97, 175.) He noted that DRS skips performing the functions that Cirba relies on as rules pertaining to "workload constraints" when a VM is incompatible with a host. (*Id.*) When this skipping occurs, the Each-to-Each Limitation cannot be satisfied because at least one VM-host pair is not evaluated using a rule pertaining to workload constraints.

In his 2022 Reply Report, Dr. Madisetti does not challenge Dr. Nieh's analysis regarding the skipped rules pertaining to "workload constraints," which necessarily occurs for at least some VMs against some hosts under his infringement theory. (SUF3 ¶ 18.) Instead, he concedes that DRS takes "shortcuts" by "skipping" steps for some evaluations:

DRS does so by executing certain functions and *finds shortcuts* to determine the guest-host placement. As shown in Dr. Nieh's source code commented outputs, DRS continues to evaluate each VM against each host and other VMs by executing

13

<sup>&</sup>lt;sup>3</sup> VMware has also moved to strike his new infringement theory. (See D.I. 1408.)

certain functions, although in some instances it does not have to execute the entire function, thereby skipping certain additional steps.

(SUF3 ¶¶ 5, 6; Ex. 20 ¶ 39 (footnotes omitted; emphasis omitted and added).)

Nor does Dr. Madisetti challenge Dr. Nieh's opinion that this skipping occurs when a VM is incompatible with a host. (*See id.*) Under Dr. Madisetti's infringement theories, there is always at least one VM that is incompatible with one host because his theories require VM-host affinity rules, which create incompatible hosts. (SUF3 ¶¶ 7, 8, 15; Ex. 21 at 144:25-145:8, 279:17-280:4); Ex. 24 ¶ 135; Ex. 25 ¶ 175.) Thus, under Dr. Madisetti's theories, at least one VM must be incompatible with at least one host, and the rule pertaining to workload constraints is skipped when DRS evaluates that VM-host pair.

DRS's skipping of steps that Cirba contends correspond to use of rules pertaining to workload constraints establishes non-infringement. Under Judge Stark's construction, the Each-to-Each Limitation is "not [] met where an evaluation *skips* a rule pertaining to even one of the three constraints." (D.I. 1160 at 8; *see also id.* at 9 (noting Cirba's concession that "[o]f course, each and every evaluation must have rules pertaining to each of the three constraints").) As DRS undisputedly skips rules pertaining to some constraints, summary judgment is appropriate.

# 2. Dr. Madisetti's Deposition Testimony Confirms That His Theory Is Contrary to Judge Stark's Construction

At his deposition, Dr. Madisetti tried to get around DRS's rule skipping by presenting a new theory. But his testimony only confirms that his infringement theory fails Judge Stark's construction. His new theory is that, to satisfy this requirement for a particular VM and virtual host, evaluating a rule for only one constraint is sufficient. He contends that if that rule fails, causing the rules for the other two constraints to be skipped (and thus to go unused), "evaluating" the VM against the host for all three constraints is still satisfied.

Dr. Madisetti explains his infringement theory through an analogy involving a test for

whether an object is a "red truck wheel." To pass this test, the object must be: (1) red (rule pertaining to a technical constraint), (2) for a truck (rule pertaining to a workload constraint), and (3) a wheel (rule pertaining to a business constraint). Dr. Madisetti posits that if the object fails the red rule, it fails all three rules, so all three have been "evaluated" as required—even though the rules pertaining to two of the three required constraint types were skipped and not actually used in the evaluation:

- Q: So, sir, when you said DRS does so by executing certain functions and finds shortcuts to determine the guest hos[t] placement, when you said that statement at Paragraph 39 of Exhibit 4, your reply expert report, what did you mean by find shortcuts for DRS?
- A: Yeah, that's what I meant. I meant subject to technical, business and workload constraint. Technical is the red, workload is the truck, and wheel is the business constraint. You are -- if you fail the red, you fail all three. So it's evaluating this combined constraint.

(Ex. 21 at 180:7-18.)

Dr. Madisetti was clear that skipping a rule evaluation for a constraint, or taking a "shortcut[] to improve efficiency," nevertheless infringes. (*Id.* at 184:11-185:12; *see also id.* at 186:6-187:3, 97:23-198:8.) But Judge Stark's "in each case" and "each of" constructions, and Cirba's concessions, preclude this rule skipping. As DRS "skips a rule pertaining to [] one of the three constraints" (D.I. 1160 at 8-9), it does not infringe.

# 3. The '687 Patent Specification Confirms that Dr. Madisetti's New Theory Is Wrong

As belated support for his new theory, Dr. Madisetti pointed to the patent's discussion of a "combined constraint analysis." (Ex. 21 at 178:2-180:4 (referring to Ex. 1 at 27:44-54).) Per Dr. Madisetti, this "combined constraint analysis" meets the Each-to-Each Limitation by combining all three constraints analyses into a single "simultaneous assessment." (*Id.*; Ex. 1 at 27:44-54.)

To him, such a combination purportedly allows evaluations to satisfy the claims if a single rule

for any one constraint fails. (Ex. 21 at 178:2-180:4.) Dr. Madisetti never pointed to this "combined constraint analysis" in his prior reports or depositions.

Dr. Madisetti's "combined constraint analysis" argument would still be wrong even if one assumes he was *not* engaging in belated claim construction and *not* disclaiming prior concessions. The '687 patent explains that a "combined constraint analysis" requires the *results* of previous *individual* technical, business, and workload constraint analyses. And rules for "each of technical, business and workload constraints" are necessarily first used in the *individual* constraint analyses to ultimately achieve the (additional) combined constraint analysis:

As can be seen in FIG. 25, the physical environment analysis 100 comprises *individual* constraint analyses related to technical, business and workload constraints that affect virtualization and consolidation strategies and an *overall combined constraint analysis using the individual constraint analyses*.

(Ex. 1 at 25:32-37 (emphasis added); *see also id.* at 27:40-43 (results are "generated for technical, business and workload constraints [before] a combined constraint analysis."), 8:64-66 (same), 19:32-35 (same), 19:43-46 (same), 23:28-31 (same).)

Consistent with the construction, the combined constraint analysis does not permit use of any rules pertaining to any technical, business, or workload constraints to be skipped. As Judge Stark explained, the Each-to-Each Limitation is "not . . . met whe[n] an evaluation *skips a rule* pertaining to even one of the three constraints." (D.I. 1160 at 8 (emphasis added).) As Dr. Madisetti's new theory fails to apply that construction, summary judgment is warranted.

### SUMMARY JUDGMENT # 4—FAILURE TO MARK ('687 PATENT)

To recover damages before providing actual notice of infringement, a patentee and its licensees must mark any practicing product. 35 U.S.C. § 287(a); *Arctic Cat Inc. v. Bombardier Recreational Prods., Inc.*, 950 F.3d 860, 864-65 (Fed. Cir. 2020); *Amsted Indus. Inc. v. Buckeye Steel Castings Co.*, 24 F.3d 178, 185 (Fed. Cir. 1994). Marking compliance is required when a

patentee "initially assert[s] an apparatus claim." *Siemens Mobility Inc. v. Westinghouse Air Brake Techs. Corp.*, C.A. No. 16-284-LPS-CJB, 2018 WL 7893901, at \*4 (D. Del. Dec. 17, 2018). IP bears the burden of proof on patent marking. *Arctic Cat Inc. v. Bombardier Rec. Prod. Inc.*, 876 F.3d 1350, 1367 (Fed. Cir. 2017). Despite IP's claims that its licensee Inc. "virtually marked," IP cannot show compliance with § 287.

### I. FACTUAL BACKGROUND

Cirba sued VMware for infringing the '687 patent, asserting apparatus and method claims. (SUF4 ¶¶ 1, 2; D.I. 13 ¶ 5.) IP, the only plaintiff now asserting that patent, seeks pre-suit damages totaling (SUF4 ¶ 3.) There is no dispute that (1) VMware had no actual notice until the lawsuit's filing (SUF4 ¶ 4); (2) Inc. sells the Densify product (D.I. 946 at 8); (3) the Densify product practices the '687 patent (SUF4 ¶ 5); and (4) the 2016 License Agreement between IP and Inc. did not require Inc. to mark (SUF4 ¶ 10; Ex. 37).

# II. IP CANNOT RECOVER '687 PRE-SUIT DAMAGES BECAUSE IT CANNOT PROVE MARKING COMPLIANCE UNDER 35 U.S.C. § 287

# A. Cirba's Alleged Product Marking that Lacks a Website Address Is Insufficient

Virtual marking requires marking a patented product "by fixing thereon the word 'patent' or the abbreviation 'pat.' together with an address of a posting on the Internet . . . that associates the patented article with the number of the patent." § 287(a). These requirements are strict and literal. Arctic Cat, 950 F.3d at 864-65; A to Z Machining Serv., LLC v. Nat'l Storm Shelter, LLC, No. CIV-10-422-C, 2011 WL 6888543, at \*3-4 (W.D. Okla. Dec. 29, 2011) (alleged marking without "patent" or its abbreviation insufficient). The legislative history confirms the strict requirements. H. Judiciary Comm., America Invents Act, H.R. Rep. No. 112-98, pt. 1, at 52 (2011) ("The Act permits patent holders to 'virtually mark' a product by providing the address of a publicly available website that associates the patented article with the number of the patent.").

IP cannot meet its burden because neither Cirba entity marked the Densify product "with an address of a posting on the Internet." IP contends that Inc. virtually marked the patented articles "on the Analysis Console Help and About splash screens of the Densify Product." (Ex. 34 at 8.) But none of the Densify product splash screens display a website address. (SUF4 ¶ 7, 8; e.g., Exs. 35, 36; Li Decl. ¶ 36, 37.) IP's alleged marking thus "does not comport with the requirements of the marking statute." *Belden Techs., Inc. v. Superior Essex Commc'ns LP*, 733 F. Supp. 2d 517, 535 (D. Del. 2010) (summary judgment due to marking failure).

The License Agreement did not require Inc. to mark, and IP did not ensure marking compliance. (SUF4 ¶ 10.) *U.S. Ethernet Innovations, LLC v. Acer, Inc.*, No. C 10-3724 CW, 2013 WL 4456161, at \*7 (N.D. Cal. Aug. 16, 2013) (summary judgment of no pre-suit damages due to licensee's failure to mark and patentee's failure to exercise reasonable efforts).

### **B.** Marking Software Product Literature Is Insufficient

Under § 287(a), the product itself must be marked unless "from the character of the article, this can not be done." D. Del. courts have recognized that software "supplied to customers directly through an electronic delivery service . . . can be marked in various ways, such as in the electronic transfer message or as a page in the program." *Siemens*, 2018 WL 7893901, at \*4.

Marking the Densify product through its "product literature, including release notes for the Densify Product," does not satisfy the statutory requirements. (Ex. 34 at 8.) The Densify product—software that is supplied to customers through an electronic download—*can* be marked, and thus must be marked. (SUF4 ¶ 6.) *Siemens*, 2018 WL 7893901, at \*4. That Inc. labeled the Densify product splash screens also "makes it readily apparent that the character of the product does not make it so that a proper mark 'can not' be affixed to the product." *Zadro Prod., Inc. v. Feit Elec. Co., Inc.*, 514 F. Supp. 3d 1209, 1214-15 (C.D. Cal. 2021) (summary judgment of no pre-suit damages as marking product packaging is insufficient when patented article can be

marked); Belden, 733 F. Supp. 2d at 535 (same).

Marking product literature is "a step beyond that which the explicit language of the marking statute contemplates." *Metrologic Instruments, Inc. v. PSC, Inc.*, No. 99-cv-4876, 2004 WL 2851955, at \*21 (D.N.J. Dec. 13, 2004) (marking user guides shipped with product insufficient); *Contour IP Holding, LLC v. GoPro, Inc.*, No. 17-CV-04738, 2020 WL 5106845, at \*7 (N.D. Cal. Aug. 31, 2020) (no pre-suit damages where patentee marked user manual). The same would be true even if the product literature included "an address of a posting on the internet" required by § 287. *See Zadro*, 514 F. Supp. 3d at 1215 (including URL for patent list insufficient because "all 'virtual markings' are on the packaging and not on the product itself).

# C. IP's Record Does Not, and Cannot, Show Substantial and Continuous Marking from 2015 to Support Pre-Suit Damages

To comply with § 287, IP must show that it and Inc. marked in a "substantially consistent and continuous" manner for the entire damages period. *Am. Med. Sys. Inc. v. Med. Eng'g Corp.*, 6 F.3d 1523, 1537 (Fed. Cir. 1993). There is no evidence of Cirba's virtual patent marking page before the filing of the complaint. (SUF4 ¶ 9; Li Decl. ¶¶ 38-40.) At trial, Cirba offered only the uncorroborated, conclusory testimony that it maintained a "website" beginning in March 2015 "that people can go and see – you know, associate our product, our company, and know what patents we have." (Ex. 32 at 1060:23-1061:4.) This testimony only reinforced that Cirba cannot show compliance with § 287's requirements. *See Contour IP*, 2020 WL 5106845, at \*7 (granting summary judgment of no pre-suit damages as marking testimony uncorroborated).

Accordingly, the Court should grant summary judgment of no pre-suit damages for the '687 patent. *McKesson Automation, Inc. v. Swisslog Italia S.P.A.*, 712 F. Supp. 2d 283, 296-97 (D. Del. 2010) (summary judgment of no pre-suit damages); *Inline Connection Corp. v. AOL Time Warner Inc.*, 465 F. Supp. 2d 312, 319 (D. Del. 2006) (same).

### SUMMARY JUDGMENT # 5—NO INDUCED INFRINGEMENT ('687 PATENT)

To prove inducement, Cirba has to show both that VMware's customers directly infringe and that VMware "affirmative[ly] inten[ded]" that this occur. *HZNP Meds. LLC v. Actavis Labs. UT, Inc.*, 940 F.3d 680, 701-02 (Fed. Cir. 2019). Cirba has shown neither.

### I. FACTUAL BACKGROUND

The asserted '687 patent claims recite methods. (SUF5 ¶¶ 1-2.) There is no evidence that VMware's customers used the claimed methods, *i.e.*, by creating and configuring DRS rules to evaluate "each virtual guest against each virtual host" using all three of "technical, business and workload constraints," as required by the asserted claims. (*See id.* ¶¶ 10-21.) Nor is there any evidence that VMware intended its customers to infringe. VMware introduced the accused functionality in 2010—before the '687 patent issued. (*Id.* ¶ 7.) VMware also discourages its customers from using extensive DRS rules. (*Id.* ¶¶ 8-9; Ex. 41 at PTX-3285 0006.)

### II. CIRBA CANNOT PROVE INDUCEMENT OF THE '687 PATENT'S METHOD

#### A. No Evidence that VMware's Customers Use the '687 Claimed Method

To establish infringement of a method claim, Cirba "must show evidence of specific instances of direct infringement." *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1329 (Fed. Cir. 2010). "[I]t is not enough to simply show that a product is capable of infringement." *Id.* Cirba has failed to point to any evidence that VMware's customers directly infringe the '687 patent by performing all of the steps of the asserted method claims. Absent this, VMware cannot be liable for inducement. *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2117 (2014).

For the '687 patent, under Cirba's infringement theory, Cirba must show that VMware's customers created DRS rules to evaluate "each virtual guest against each virtual host" using all three of "technical, business and workload constraints," as required by asserted claims 3 and 7.

(D.I. 1161 at 1 (emphasis added).) Dr. Madisetti agreed that the accused DRS features in their

default settings would not infringe the '687 method. (SUF5 ¶¶ 18-19; Ex. 38 at 632:20-23.)

Infringing the '687 claimed method requires user creation and configuration of DRS rules, as well as evaluations that use rules for each of the three constraint types, for each virtual machine against each host in a virtualized environment. (SUF5 ¶¶ 1-5; Ex. 38 at 618:10-20; Ex. 22 at DDX-3.3.)

Judge Stark previously questioned the sufficiency of Cirba's infringement evidence. (D.I. 946 at 11 (noting Cirba's "at best, weak" infringement evidence); D.I. 946 at 12 ("skeptical" about Cirba's infringement evidence).) Even Cirba's Mr. Hillier admitted that evaluating each virtual machine against each host "would rarely be the case" for small datacenters and be "wildly impractical" in very large datacenters. (Ex. 38 at 358:24-359:7; 644:24-646:2.)

At trial, Cirba could not point to a single customer using the claimed method. Cirba's evidence of DRS rule configuration failed to show that 764 VMs were evaluated against each host and other VMs using rules for the three required constraints. (SUF5 ¶ 10-12; Ex. 38 at 260:15-264:3; Ex. 42.) Likewise, Dr. Madisetti's evidence of use of DRS rules without evidence that they followed all steps of the claimed method was insufficient. (SUF5 ¶ 13-14; Ex. 38 at 585:14-586:10; Ex. 43.) Finally, Cirba's "hands-on labs" evidence only showed "interactive simulations" rather than customer use of actual accused products. (SUF5 ¶ 15; Ex. 38 at 543:11-544:6; Ex. 44.)

Two years later, Cirba's evidence fares no better. Cirba still cannot point to a single instance of a customer using the claimed method. Dr. Madisetti's new evidence of DRS rule configurations for does not show infringement. In fact, Dr. Madisetti admitted that he did not have an opinion whether these customers' environments infringed:

- Q. Can you tell the jury, sir, yes or no, whether you have an opinion as to whether virtualized environment infringes a claim of the '687 patent?
- A. I will not opine on as a potential infringer. I believe I don't believe that's

part of my report. [...]

- Q. So what is your opinion, sir, vis-à-vis ? Do you think that virtualized environment with the VM-to-host affinity rules infringes any claim of the '687 patent?
- A. I've not formed an opinion with respect to (SUF5 ¶¶ 20-21; Ex. 45 at 155:24-156:9; 157:13-20.)

Circumstantial evidence cannot overcome this deficiency. *SRI Int'l. Inc. v. Internet Sec.*Sys., Inc., 647 F. Supp. 2d 323, 336-37 (D. Del. 2009) (citing ACCO Brands v. ABA Locks Mfr.

Co., 501 F.3d 1307, 1313 (Fed. Cir. 2007)). Dr. Madisetti contends that "customers like

"and a "VMware presentation" provide further evidence of customers' use. (Ex. 45 at 282:18-283:12.) But reported it does not even use DRS. (SUF ¶ 16-17; Ex. 38 at 637:23-638:17, 644:6-23.) And while the VMware presentation Dr. Madisetti cites states that

, it does not suggest that any customer enabled and applied those rules to every VM. (Ex. 46; Ex. 38 at 541:12-23.)

Dr. Madisetti's conclusory testimony on customer use cannot save the day. "[I]t is well settled that an expert's unsupported conclusion on the ultimate issue of infringement is insufficient to raise a genuine issue of material fact." *Arthur A. Collins, Inc. v. N. Telecom Ltd.*, 216 F.3d 1042, 1046 (Fed. Cir. 2000). Although Dr. Madisetti testified it is "reasonable that a large group of customers would be using these affinity, anti-affinity and other rules that [he] cite[s]," he did not opine whether any customer would have that "on every VM in their cluster" or even how many rules are required for infringement. (Ex. 45 at 288:11-289:12.) Notably, he could not identify a single customer for which he had *actual evidence* of infringement. (*Id.* at 285:11-286:3 (stating only he "believe[s]" customers infringe); SUF ¶¶ 22-23.) His "belief" cannot support an infringement finding when he does not "set forth the factual foundation for his opinion." *Parallel Networks Licensing, LLC v. Microsoft Corp.*, 777 F. App'x 489, 493–94 (Fed.

Cir. 2019) (summary judgment of no indirect infringement as no evidence of customer use).

Because Cirba fails to present any evidence of customer use, summary judgment of no induced infringement should be granted. *E-Pass Techs., Inc. v. 3Com Corp.*, 473 F.3d 1213, 1222-23 (Fed. Cir. 2007) (affirming summary judgment of non-infringement of a method claim without evidence of use); *Cradle IP, LLC v. Texas Instruments, Inc.*, 5 F. Supp. 3d 626, 648-49 (D. Del. 2013), *aff'd*, 588 F. App'x 1000 (Fed. Cir. 2015) (granting summary judgment for same).

### B. Insufficient Evidence that VMware Had the Requisite Intent to Induce

Inducement "requires knowledge that the induced acts constitute infringement." *Commil USA, LLC v. Cisco Sys., Inc.*, 575 U.S. 638, 641 (2015). Cirba must show that VMware affirmatively induced direct infringement and knew the induced actions infringed. *See Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1332 (Fed. Cir. 2016). This requires a showing that VMware "encourage[d], recommend[ed], or promot[ed]" its customers' infringement with the requisite scienter. *HZNP*, 940 F.3d at 701-02.

Cirba has presented no evidence that VMware knew it was inducing infringement.

VMware could not have intended that its customers infringe when it added the accused functionality in 2010 before the '687 patent issued. (SUF5 ¶ 7.) Cirba's evidence showing VMware's alleged knowledge of the '687 patent's Abstract is insufficient to show the requisite intent. (SUF5 ¶ 6.) See Commil USA, 575 U.S. at 640-42 (mere knowledge of a patent is not enough because inducement "requires proof the defendant knew the acts were infringing"). And contrary to Cirba's allegation that VMware encourages its customers to infringe through marketing materials, the indisputable evidence is that VMware discourages use of DRS rules. (SUF5 ¶¶ 8-9; Ex. 41 at 6 ("It is highly recommended to reduce the number of affinity rules to a minimum.")). That does not show intent to induce. HZNP, 940 F.3d at 701-02.

### RULE 12(B)(1) AND 12(C) MOTION—INC.'S LACK OF STANDING ('492 PATENT)

The law of the case compels the conclusion that Inc. lacks Article III standing and any right under 35 U.S.C. § 281 to assert the '492 patent and thus must be dismissed. As Inc. lacks standing, its joinder of IP as a counterclaim co-plaintiff was improper. The entire '492 patent counterclaim therefore should be dismissed.

#### I. FACTUAL BACKGROUND

On March 21, 2016, Inc. transferred all rights in the '492 patent to IP (Ex. 47) and executed a License Agreement granting a license to Inc. (Ex. 37). The License Agreement states that IP remains "the exclusive owner of all proprietary rights" and "gives the Licensee [Inc.] no rights in such proprietary rights." (*Id.* § 8.)

On March 23, 2020, in response to VMware's infringement suit against Inc. in Virginia, Inc. counterclaimed for infringement of the '492 patent and joined IP. (272 Action, D.I. 75 at 34-36, 68-72.) On March 23, 2021—one year after Inc. asserted the '492 patent—IP and Inc. amended the License Agreement ("License Amendment"). (Ex. 48.) The License Amendment purports to grant an exclusive license to Inc. (*Id.* § 14.1.)

### II. DISMISSAL BASED ON INC.'S LACK OF STANDING IS WARRANTED

- A. Inc. Should Be Dismissed as to the '492 Patent for Lack of Standing
  - 1. Judge Stark's and the Federal Circuit's Prior Rulings Govern

Judge Stark's and the Federal Circuit's prior standing rulings for the '687 and '367 patents are law of the case and "continue to govern the same issues in subsequent stages in the same case." *ACLU v. Mukasey*, 534 F.3d 181, 187 (3d Cir. 2008) (citation omitted).

Inc. is a bare licensee under the assignment and license agreements. Judge Stark concluded that "the Assignment Agreement and License Agreement render Inc. no more than a bare licensee." (D.I. 752 at 8.) The Federal Circuit agreed, holding that Inc. is a "bare licensee"

and "lacks any right to exclude or any other exclusionary right." (D.I. 1045 at 6, 9.)

Judge Stark ruled that Inc. lacks standing to assert the '687 and '367 patents. Judge Stark concluded that, as Inc. was a bare licensee when it sued, it had no exclusionary right and thus lacks Article III standing. (D.I. 752 at 4-10.) He also rejected Cirba's reconsideration motion. (D.I. 946 at 3-6; *see also* D.I. 1396 at 3, 11 (improper to "reassert the substantive rights of Inc.—who was dismissed for lack of Article III standing").) The Federal Circuit also held that Inc. lacked any "right under 35 U.S.C. § 281 to be a patent plaintiff in this case" as "Inc. lacks any right to exclude." (D.I. 1045 at 9.)

### 2. Inc. Has No Art. III Standing and No Statutory Right in '492 Patent

Applying the law of the case to the '492 patent, Inc. lacks Article III standing and any statutory right to assert it too. Judge Stark and the Federal Circuit concluded that the Assignment and License Agreements rendered Inc. merely a bare licensee. (D.I. 752 at 8.) Both agreements cover the '492 patent. (Ex. 47 at -29 (identifying U.S. patent application No. 14/341,471, which led to the '492 patent); Ex. 37 at 5 (same).) Thus, when Inc. filed its counterclaim asserting the '492 patent, it lacked Article III standing and any statutory right under § 281. (D.I. 752 at 4-5 (a bare licensee lacks standing).) *See Sicom Sys., Ltd. v. Agilent Tech., Inc.*, 427 F.3d 971, 975-976 (Fed. Cir. 2005) (standing must be present at the time the suit is brought).

Pursuant to Rule 12(b)(1) and 12(c), Inc. thus should be dismissed for lack of Article III

<sup>&</sup>lt;sup>4</sup> Cirba may point to the later License Amendment. But because at least Article III standing cannot be cured retroactively, the Amendment cannot "fix" this defect. (Ex. 48 § 14.1; *see also* D.I. 994 at 9:20-24; D.I. 1080 at 17:23-31 (Cirba admitting Article III standing defect cannot be fixed).) Nor did Inc. and IP's amalgamation fix Inc.'s standing. As VMware has explained, Cirba cannot evade Article III's jurisdictional limits through the artifice of amalgamation. (D.I. 1351 at 9-11.) The Court agreed. In denying Cirba's motion to update the case caption to reflect IP's amalgamation with Inc., the Court emphasized that it would be improper "to reassert the substantive rights of Inc.—who was dismissed for lack of Article III standing." (D.I. 1396 at 11 (retaining IP and Inc. as plaintiffs notwithstanding their amalgamation).)

standing and the absence of any statutory right under 35 U.S.C. § 281.

# B. The '492 Counterclaim Should be Dismissed as IP Was Improperly Joined

IP was improperly joined as a counterclaim co-plaintiff for the '492 patent in the Virginia Action. VMware sued only Inc. in the Virginia Action. (272 Action, D.I. 1.) *See Hall v. Hall*, 138 S. Ct. 1118, 1131 (2018) ("constituent cases [in a consolidated action] retain their separate identities"). Despite its lack of standing, Inc. asserted the '492 patent counterclaim and joined IP. (272 Action, D.I. 75 at 34.)

As Inc. lacked Article III standing and any statutory right, it could not join IP. *Schreiber Foods, Inc. v. Beatrice Cheese, Inc.*, 402 F.3d 1198, 1203 (Fed. Cir. 2005); *see, e.g., SPH Am., LLC v. Huawei Techs., Co.*, No. 13-cv-2323, 2017 WL 1331920, at \*5-6 (S.D. Cal. Apr. 10, 2017) (dismissing action and denying request to join patent owner because plaintiff lacks standing); *Intell. Tech LLC v. Zebra Techs. Corp.*, No. 6:19-cv-00628, 2022 WL 1608014, at \*8 (W.D. Tex. May 20, 2022), *reconsideration denied*, 2022 WL 3088572 (W.D. Tex. Aug. 3, 2022) (rejecting joinder as "[a]ction cannot proceed in view of an incurable standing defect"); *Church & Dwight Co. v. Abbott Lab'ys*, No. 05-2142, 2006 WL 3000201, at \*5 (D.N.J. Oct. 20, 2006) (counterclaim plaintiff lacked Article III standing and was not allowed to join patent owner).

As neither Inc. nor IP is a proper counterclaimant to assert the '492 patent, the Court should dismiss Cirba's '492 patent counterclaim.

# RULE 12(C) MOTION—FAILURE TO SATISFY § 101 ('687 AND '459 PATENTS)

Cirba alleges infringement of claims 1, 2, 7, 10, 15, 38, and 41 of the '459 patent and claim 3 of the '687 patent (collectively, the "101 Challenged Claims"). These claims fail both

<sup>&</sup>lt;sup>5</sup> Judge Stark previously held that claim 7 of the '687 patent is patent eligible. (D.I. 137.) In addressing the proposed pretrial order, Judge Stark did not allow VMware to present patent eligibility defenses for claims 3 or 7 to the January 2020 jury, indicating that his decision on

prongs of the patent eligibility test in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014).

## I. FACTUAL BACKGROUND

### A. Virtualization and Management of Virtual Machines and Hosts

The 101 Challenged Claims relate to virtualization—creating and operating emulated computer systems, or "virtual machines" ("VMs"), on networks of physical computers called "hosts." (D.I. 68 ¶ 20-22; see also Ex. 1 at 1:64-67.) As of the alleged priority dates, virtualization was "well known in the art." (Ex. 4 at 1:42-46.) Users of virtualization often are "concerned with [system] redundancies and how they can best achieve consolidation of capacity to reduce operating costs." (*Id.* at 2:5-13; Ex. 1 at 1:55-63.) "Typically, the consolidation solution [of which hosts to place VMs upon to save costs] is manually specified by a user." (Ex. 4 at 30:15-16.) The '459 and '687 patents claim analyzing and evaluating VMs and hosts to determine a consolidation solution. (*See id.* at 2:66-3:35.)

### B. The '459 and '687 Patents

The '459 is entitled "Method and System for Determining Compatibility of Computer Systems" and issued on March 16, 2021. The '687 is entitled "Method and System for Evaluating Virtualized Environments," issued on June 26, 2012, and shares much of its specification with the '459 patent. Neither patent was scrutinized under 35 U.S.C. § 101 during prosecution.

The Court construed the '687 patent on November 26, 2019 (D.I. 357) and the '687 and '459 patents on February 24, 2022 (D.I. 1160). In its July 29, 2022 Final Election of Asserted Claims (Ex. 22), Cirba selected '687 claims 3 and 7 and '459 claims 1, 2, 7, 10, 5, 38, and 41.

### II. LEGAL STANDARD

Alice established a two-step threshold legal test for patent eligibility under Section 101:

claim 7 had addressed both claims. (D.I. 439 at 35, ¶ 74; D.I. 460 at 7, ¶ 17.) To the extent that is incorrect, VMware believes '687 claim 3 is patent ineligible and thus includes it in this motion.

(1) Are the claims directed to a patent-ineligible abstract idea? and (2) If so, do the claim limitations, individually or as ordered combinations, recite an inventive concept that transforms the claims into "significantly more" than the abstract idea? 573 U.S. at 217-18. The Section 101 inquiry is "frequently . . . resolved on a Rule 12(b)(6) or (c) motion where the undisputed facts . . . require a holding of ineligibility under the substantive standards of law." *PersonalWeb Techs*. *LLC v. Google LLC*, 8 F.4th 1310, 1314 (Fed. Cir. 2021). A court need not individually address all claims, so long as it identifies a representative claim and "all the claims are substantially similar and linked to the same abstract idea." *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (cleaned up).

# III. DISMISSAL OF CIRBA'S INFRINGEMENT CLAIMS AS TO THE CHALLENGED CLAIMS IS WARRANTED UNDER § 101 AND RULE 12(C)

# A. Claim 1 of the '459 Patent Is Representative of '459 Patent Asserted Claims

'459 claim 1 is representative of claims 2, 7, 10, 15, 38, and 41 for purposes of Section 101. The '459 patent claims are directed to analyzing data about virtual environments to determine VM placements. Claim 1 recites a "system for determining placement of source computer systems on target computer systems." Its system "collect[s] data," analyzes the data to "determine a placement of at least one source system," and "issue[s] instructions to place the at least one source system . . . in accordance with the determined placement." Claim 1's placement determination requires "evaluat[ing] compatibility" between VMs and hosts by "evaluating one or more rules" and "evaluating the impact on resource utilization." (Emphasis added).) Claim 32, from which claims 38 and 41 depend, recites a "computer implemented method for placing a source system on a target system" with identical steps to claim 1.

The asserted '459 dependent claims are merely minor variations to claim 1's determining step: (i) evaluating new or unplaced source systems (claims 2 and 38); (ii) evaluating business

constraints (claims 7, 15, and 38); and (iii) evaluating user-defined rules (claims 10 and 41).

The Court thus can rely on its analysis of claim 1 for the other claims' eligibility. *See*, *e.g.*, *Fast 101 PTY Ltd. v. Citigroup Inc.*, 424 F. Supp. 3d 385, 387-88 (D. Del. 2020), *aff'd* 834 Fed. Appx. 591 (Fed Cir. 2020) (claim 1 representative, as all independent claims "recite[d] the same concept" and "dependent claims offer[ed] only minor, non-technical variations"); *BroadSoft, Inc. v. CallWave Commc'ns, LLC*, 282 F. Supp. 3d 771, 779 (D. Del. 2017) (same).

### B. The Challenged Claims of Both Patents Are Invalid Under Section 101

# 1. Alice Step 1: The Challenged Claims Are Directed to an Abstract Idea

The 101 Challenged Claims of the '459 and '687 patents are directed to the abstract idea of analyzing data about a virtual environment to determine placements of VMs on hosts. The 101 Challenged Claims do no more than leverage the results of this analysis for trivial "post-solution activity"—generating "instructions to place" ('459 patent) or "a mapping" ('687 patent).

The 101 Challenged Claims do not limit this abstract idea or its application except by reference to virtualization. But the references to virtualization do not render the claims eligible, however, as they involve analyzing real and *imagined* (*i.e.*, hypothetical) computer systems or any number of their components, along with trivial post-solution activity. *See Bilski*, 561 U.S. 593, 610-11 (2010) (limiting formula to a "particular technological environment" or "adding insignificant post-solution activity" cannot circumvent prohibition on patenting abstract ideas). As Cirba argued and the Court agreed during claim construction, the asserted '459 patent claims are not even limited to any specific, *existing* virtual environments. Instead, they cover the analysis of any conceivable "physical, virtual, or *hypothetical* systems" and even their "*components*." (D.I. 1160 at 9-11.) When Judge Stark found claim 7 of the '687 patent and the '492 patent to be patent eligible, he had not yet construed "system" in the '459 patent to embrace "hypothetical systems."

# a. The Challenged Claims are directed to analyzing data, and reporting the results of the analysis

A court first looks to the claim language to find the "focus" of the claims and determine what the claims are "directed to." *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 765-66 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 983 (2020). A court also may consider the specification "to understand . . . what the patent describes as the invention." *Id.* at 767.

On their face, the 101 Challenged Claims are directed to using computers as tools to determine a consolidation solution. All of the 101 Challenged Claims focus on analyzing data and using the results for trivial post-solution activity (*i.e.*, "issu[ing] instructions" or "providing a mapping"). *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) ("[W]e have described the first-stage inquiry as looking at the 'focus' of the claims . . . .").

As the '459 patent explains, the analysis of virtual environments to find "consolidation solutions" and save costs conventionally had long been done "manually." (See Ex. 4 at 30:15-16.) The '459 patent claims recite abstract, functionally-described analysis steps including "determin[ing] a placement of at least one source system . . . on at least one target system . . . by . . ." "evaluat[ing] compatibility." That these systems can be any "physical, virtual, or hypothetical systems" (or "components") emphasizes the claims' abstractness. The '459 patent's dependent claims do not change their abstract focus. Instead, they merely specify minor variations on the claimed analysis and are themselves abstract (e.g., "evaluating" "business considerations" and "user-defined" rules). See e.g., BSG Tech LLC v. Buyseasons, Inc., 899 F.3d 1281, 1287 n.1 (Fed. Cir. 2018) (abstract idea unchanged by dependent limitations on processed information).

Claim 3 of the '687 patent similarly recites abstract, functionally-described analysis steps including "analyzing said virtual guests and hosts based on technical, business and workload constraints . . . to determine guest-host placements," and "determining which . . . virtual servers

are most suitable for conversion from one virtualized platform to another . . . . "

The patents' specifications confirm that all 101 Challenged Claims are directed to analyzing data and using the results for trivial post-solution activity. The patent titles expressly refer to the claimed analysis: "Method and System for *Determining* Compatibility of Computer Systems" ('459 patent), and "Method and System for *Evaluating* Virtualized Environments" ('687 patent). The specifications state that the alleged inventions address the traditionally manual process of determining where to place VMs on hosts to reduce the costs for a virtual environment. (*See* Ex. 4 at 1:53-2:13, 2:43-62, 30:15-16; Ex. 1 at 1:36-63, 2:3-11) The claimed inventions purport to address these problems by analyzing systems and leveraging the results—*e.g.*, "1-to-1 compatibility maps" and "a consolidation summary" (Ex. 4 at 38:21-39:14), "analysis and associated map" (Ex. 1 at 23:16-51)—to perform conventional post-solution virtualization techniques—*e.g.*, "issu[ing] instructions to place" (Ex. 4, claim 1).

# b. Analyzing data and reporting the results is an abstract idea

As both the Federal Circuit and courts in this District have repeatedly held, "collecting information, analyzing it, and displaying certain results of the collection and analysis" are "a familiar class of claims 'directed to' a patent-ineligible concept." *Elec. Power*, 830 F.3d at 1353; *see also Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384-85 (Fed. Cir. 2019) (collecting and analyzing market data abstract); *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (collecting and analyzing financial data abstract); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1344-45 (Fed. Cir. 2018) (collecting cases); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093 (Fed. Cir. 2016) ("provid[ing] notification" based on analysis); *Intell. Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338-40 (Fed. Cir. 2017) ("a component that detects modification" and "modifies a data component").

The focus of all 101 Challenged Claims mirrors that of the unpatentable claims in *Electric* 

Power. The claims' limitations there included: (i) receiving data from various sources; (ii) detecting and analyzing events based on that data; (iii) deriving various metrics from the data; (iv) displaying the data and the analysis results; and (v) updating the metrics. See 830 F.3d at 1352. The Federal Circuit held these claims to be ineligible as directed to "collecting information, analyzing it, and displaying certain results of the . . . analysis." Id. at 1353. The Federal Circuit recently reaffirmed Electric Power, finding unpatentable claims directed to "the abstract idea of (1) collecting information . . ., (2) analyzing the information (here, calculating a usage pattern and determining its compliance with a predetermined usage pattern), and (3) reporting the results." In re Gale, 856 Fed. App'x 887, 889-90 (Fed. Cir. 2021) (collecting cases).

Here, the asserted '459 patent claims similarly include limitations such as "collect[ing] data for a collection of computer systems" (i.e., receiving data), "determin[ing] a placement of at least one source system . . . by," "evaluat[ing] compatibility" (i.e., analyzing events and deriving metrics) and "issu[ing] instructions to place the at least one source system" (i.e., displaying results and updating metrics). '687 patent claim 3 likewise recites "analyzing said existing virtual guests and hosts . . . to determine guest-host placements" and "determining which of said existing virtual servers are most suitable for conversion" (i.e., analyzing events and deriving metrics), and "providing a mapping [of the conversions]" (i.e., displaying results and updating metrics).

The claims do not avoid ineligibility by using the results of their analysis for trivial post-solution activity (*i.e.*, "issuing instructions" or "providing a mapping"). *See Bilski*, 561 U.S. at 610-11 ("prohibition against patenting abstract ideas cannot be circumvented by . . . adding insignificant post-solution activity."). This is especially true because the analysis and post-solution activity here "traditionally" was performed "manually." (*See* Ex. 4 at 30:15-16, 34:64-35:18 (claimed analysis akin to "classic bin packing").) For example, the asserted '459 dependent

claims add only additional abstract ideas ("business considerations" and "user-defined" rules). RecogniCorp, LLC v. Nintendo Co., Ltd., 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract."); see also WiTricity Corp. v. Momentum Dynamics Corp., 563 F. Supp. 3d 309, 324 (D. Del. 2021) (same).

Courts routinely find claims reciting functionally-described limitations, as here, to be abstract and patent ineligible. *See, e.g., In re Gale*, 856 Fed. App'x at 888-89; *In re Killian*, 45 F. 4th 1373, 1377-79 (Fed. Cir. 2022) ("determining whether the person indicated in the electronic data record is eligible . . . based on the identified information").

### c. The challenged claims do not improve computer technology

The Federal Circuit has emphasized that a critical inquiry is whether the claims are directed to an improvement to computer functionality. *See In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016); *see also Rondevoo Techs., LLC v. Aernos, Inc.*, No. 19-cv-680, 2020 WL 1441116, at \*4 (D. Del. Mar. 24, 2020). That is not so here. Instead, the 101 Challenged Claims are directed to the computer implementation of a "manual[]"analysis for reducing operational costs (*see* Ex. 4 at 2:5-13, 30:15-16; Ex. 1 at 1:55-63).

Nor do the challenged claims recite non-generic computers or specific components, let alone any new computer, file format, data structure, or virtualization technologies that improve existing technology. The patents explain that their alleged inventions are not aimed at fundamentally changing virtualization itself, but at reducing virtualization costs. (*See* D.I. 68 ¶ 24; Ex. 4 at 1:47-51, 2:45-48; Ex. 1 at 1:30-34, 2:6-9.) The challenged claims analyze virtual environments and use the results for trivial post-solution activity, like moving VMs to reduce the number of hosts and thus operational costs. *See TLI Commc'ns*, 823 F.3d at 612 ("generalized steps to be performed on a computer using conventional computer activity" ineligible).

Further underscoring that the 101 Challenged Claims are abstract is that none recites

particular computer hardware for performing their limitations. '459 claim 1 merely recites a "system configured to execute" the claim steps for managing generic "computer systems." And '459 claims 38 and 41 simply recite "computer implemented method[s]" for doing the same. '687 claim 3 likewise refers generally to "virtual guests" and "hosts." The specifications of both patents describe their computer systems only in generic terms, confirming the patents' ineligibility. (See Ex. 4 at 5:15-24; Ex. 1 at 7:24-33.) See TLI Commc'ns, 823 F.3d at 612 ("[T]he specification fails to provide any technical details for the tangible components, but instead predominately describes the system and methods in purely functional terms").

That the claims set forth no new arrangement of computer components at all, and analyze imaginary "hypothetical systems" and their "components" (D.I. 1160 at 9-11) using "business considerations" ('459 patent, claims 7, 15, and 38) or "business constraints" ('687 patent, claim 3), reinforces their abstractness. *See SynKloud Techs., LLC v. HP Inc.*, 490 F. Supp. 3d 806, 819 (D. Del. 2020) (claims directed to unpatentable abstract idea where none of alleged computer improvements "enables a computer . . . to do things it could not do before'" (quoting *Finjan Inc. v. Blue Coat Sys.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018))); *see also PersonalWeb Techs.*, 8 F.4th at 1318 ("[T]he focus of the claims is not on . . . an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.").

Although Judge Stark previously held that certain other claims of the '687 and '492 patents were directed to "problem[s] that exist only in a computer environment" (see, the 272 Action, D.I. 96 at 12), his later construction of the asserted '459 patent claims to cover "hypothetical computer systems"—and the '687 and '459 patent specification's express statement of the same—highlights that the 101 Challenged Claims do not, in fact, address a technical problem or offer a technical solution. The claims merely address the economic problem of

reducing operational costs of a computer environment using a traditionally manual process. (*See* Ex. 4 at 2:5-13, 30:15-16; Ex. 1 at 1:55-63.). This is not patent-eligible.

# 2. Alice Step 2: The Claims Do Not Recite an Inventive Concept

Nor do the limitations of the 101 Challenged Claims, considered individually and as ordered combinations, recite an inventive concept. As noted above, none of the claimed methods and systems recites any improved computer or computer technology. Instead, they merely aim to consolidate VMs on fewer hosts in virtual environments (including "hypothetical" ones) to reduce costs through consolidation, using conventional techniques. And they do so using generic computer systems. *See In re Elbaum*, No. 2021-1719, 2021 WL 3923280, at \*2 (Fed. Cir. Sept. 2, 2021) (claims invalid under §101 as "merely recite[d] the abstract idea itself").

The claimed analyses also represent nothing more than high-level, functional descriptions of ways to perform virtualization management, which itself was a "well-understood, routine, conventional activit[y] previously known in the industry." *Alice*, 573 U.S. at 225. Each step recites virtualization activity that was conventional and historically done "manually." (Ex. 4 at 30:15-16.) This is not patent-eligible. *See Yu v. Apple Inc.*, 1 F. 4th 1040, 1045 (Fed. Cir. 2021) (hardware configuration patent ineligible as it "does not itself produce the asserted advance").

The patents' specifications confirm the challenged claims' lack of an inventive concept. They do not disclose any particular combination of hardware or software--generic or otherwise--for performing the recited functionality. For example, the '459 patent notes that its claimed analysis was a traditionally manual operation. (*See* Ex. 4 at 30:15-16.) Nothing in the '459 specification suggests that the claims' use of "rules" for analyzing virtual environments are inventive per se. Managing systems using "user defined" rules ('459 patent, claims 10 and 41) or to address "business" needs ('459 patent, claims 7, 15, 38) also involves plainly conventional

activity. (*See*, *e.g.*, Ex. 4 at 1:59-2:13 (describing prior art consideration of business needs defined by organizational users).) Nor do asserted '459 dependent claims, which recite further abstract ideas and generic computer components, add inventive concepts. *See Elbaum*, 2021 WL 3923280, at \*2 (no inventive concept where "claim recites generic computer functions, which the specification describes are carried out by conventional computer components.").

Limiting the claimed data analysis and reporting to the specific field of virtualization is not an inventive concept that avoids invalidation. "[T]hat some . . . steps had not previously been employed in the art [is] not sufficient, standing alone, to confer patent eligibility upon the claims at issue." *Affinity Labs of Tex.*, *LLC v. DIRECTV*, *LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016).

Finally, Cirba's own allegations confirm the lack of an inventive concept. Cirba has alleged that "[t]he '459 patent solves . . . technical challenges, for example, by *analyzing* 'compatibilities' between systems based on the parameters to determine if efficiencies can be realized by consolidating either entire systems or aspects or components thereof." (D.I. 992 ¶ 84 (counterclaims) (emphasis added) (citing Ex. 4 at 6:62-7:4).) And for the '687 patent, Cirba alleges that it "addresses the technological problems" of consolidating VMs on hosts "by 'recogniz[ing] that virtualization often involves more than *considering sizing*." (D.I. 68 ¶ 64 (emphasis added) (citing Ex. 1 at 2:12-21).) Per Cirba, "it is *beneficial to understand all the constraints* that govern and impact a target environment and ensure that these constraints are taken into account *when planning and managing a virtual environment*." (*Id*.)

But these stated solutions—"analyzing," "considering," and "understanding"—are no more than the computer implementation of conventional mental processes for analyzing and managing virtual environments. (*See* Ex. 4 at 30:15-16.) This is insufficient to add an inventive concept or render the claims patent-eligible. *See S.I.SV.EL. Societa Italiana per lo Sviluppo* 

Dell'Elettronica S.p.A. v. Rhapsopy Int'l Inc., No. 18-69-MN, 2019 WL 2491898, at \*6 (D. Del. June 14, 2019) (claims "do not require use of anything more than off-the-shelf computer technology . . . as a tool to implement what is really an assertedly better way of analyzing data").

Under Rule 12(c), VMware therefore asks that the Court find the 101 Challenged Claims patent-ineligible under Section 101 and dismiss Cirba's related infringement claims.

# MOTION TO EXCLUDE EXPERT TESTIMONY (MADISETTI)

Dr. Madisetti's reports are not only thin on evidence and analysis of his infringement theories; they are plagued by critical flaws that warrant excluding his opinions at trial. Faced with claims that do not match the accused products, Dr. Madisetti impermissibly strays from Judge Stark's constructions and introduces new constructions of his own. Furthermore, Dr. Madisetti's opinions regarding the source code for the accused products, which underlie his infringement theories, rest on unreliable and unexplained methodology. Dr. Madisetti's infringement opinions are thus likely to mislead and confuse the jury and should be excluded.

#### I. FACTUAL BACKGROUND

On August 19, 2022, Dr. Madisetti submitted a report regarding VMware's alleged infringement. The report comprises three volumes and numerous exhibits. Volume 1 is a copy of the report that Dr. Madisetti provided on November 29, 2019 and focuses on purported infringement of the '687 patent by VMware's products using or interfacing with a legacy version of VMware's DRS software (DRS 1.0). (*See* Ex. 49, Cover ¶ 1.) These products were at issue in the January 2020 trial. Volume 2 purports to supplement Volume 1's analysis of the '687 patent by focusing on products released after trial that incorporate a new version of DRS (DRS 2.0). (*Id.*) Volume 3 contains Dr. Madisetti's opinions about the '492 and '459 patents. (*Id.*)

### II. DR. MADISETTI'S UNRELIABLE OPINIONS SHOULD BE EXCLUDED

A. Dr. Madisetti Fails to Apply or Misapplies Judge Stark's Constructions

1. Dr. Madisetti Does Not Explain How VMware Uses "Rule Sets Pertaining to Each of Technical, Business and Workload Constraints" for Each VM-Host Evaluation

Judge Stark construed claims 3 and 7 of the '687 patent to require "evaluating each virtual machine against each virtual host and other virtual machines, *in each case* using one or more rule sets pertaining to *each of* technical, business and workload constraints" (the "Each-to-Each Limitation"). (D.I. 1160 at 5 (emphasis added).) This construction was the result of a "new dispute" that emerged during post-trial briefing "involving whether each VM must be evaluated using rules for all three constraints." (*Id.* at 5-6.) Judge Stark agreed with VMware that "each evaluation must use one or more rules for each of the three constraints," as reflected in his construction. (*Id.* at 8.) He noted Cirba's concessions that "the claim limitation would not be met where an evaluation skips a rule pertaining to even one of the three constraints." (*Id.* at 8-9.) In addition, he cited "Dr. Madisetti's testimony that an evaluation lacking even one constraint would not infringe." (*Id.* at 9 (citing Ex. 28 at 43-44).) Thus, Cirba must show how DRS evaluates each VM against each host and other VMs, *in each case* using rule sets pertaining to *each of* technical, business, and workload constraints. Dr. Madisetti makes no attempt to follow this ruling.

As an initial matter, Dr. Madisetti's opinions in Volume 1 (focusing on products with DRS 1.0) *predate* Judge Stark's 2022 construction and thus fail to account for it. As noted above, Volume 1 reproduces Dr. Madisetti's 2019 report, with no updating to account for the 2022 construction. (*See* Ex. 49, Cover ¶ 1.) Volume 1 glosses over how DRS allegedly evaluates each virtual guest with each virtual host in a single conclusory sentence. (*See id.*, Vol. 1 ¶ 106.) The attached claim charts, meanwhile, point to various supposed examples of rules for each of technical, business, and workload constraints, but present each of them in isolation. (*See, e.g., id.*, Ex. 5 at 82-96.) Dr. Madisetti never explains how these examples fit together to evaluate each VM against each host, *in each case* using *each of* technical, business, and workload rules.

As noted above, Judge Stark construed the Each-to-Each Limitation in 2022 because of a dispute between the parties on infringement. (D.I. 1160 at 5-6.) By failing to address the additional construction, Dr. Madisetti's Volume 1 opinions continue to rely on an infringement theory in which the required use of rules can be satisfied generally by all evaluations in the aggregate. But Judge Stark specifically ruled that out, explaining that his construction was intended to resolve whether "each evaluation between a VM and a host or a VM and another VM (as opposed to all evaluations in the aggregate) must use one or more rule sets for each of the three constraints." (Id. at 6-7 (emphasis added).) Dr. Madisetti's failure to show how DRS satisfies the Each-to-Each Limitation as properly construed runs afoul of Rule 702(d)'s requirement that he reliably apply sound principles and methods to the facts of the case.

Dr. Madisetti's opinions in Volume 2 (focusing on products with DRS 2.0) fare no better. Like Volume 1, Volume 2 points to various purported examples of rules pertaining to each constraint type, but offers no coherent theory how all three are actually used when evaluating each VM against each host. For example, Dr. Madisetti relies on the function as a rule pertaining to workload constraints, but does not explain how this function is called, without fail, in each evaluation of each VM against each host. (See Ex. 49, Vol. 2 ¶ 127.) The same is true for every other functionality that Dr. Madisetti claims is a workload constraint. (See, e.g., id., Ex. 18 at 120-123, 180-181, 188-189.)

Similar circumstances warranted exclusion in *Minerva Surgical, Inc. v. Hologic, Inc.*, C.A. No. 18-217-JFB-SRF, 2021 WL 3048447 (D. Del. July 20, 2021). There, the court had construed the claim term "substantially dissimilar material properties" as requiring both "different

is not called by DRS 2.0 at all. As addressed further in Section II.C. *infra* at 43, this glaring example of Dr. Madisetti's unreliable source code analysis illustrates yet another reason why his '687 infringement opinions should be excluded.

thickness" and "different composition." *Id.* at \*8. Plaintiff's expert, however, relied only on the thickness prong and ignored composition. *Id.* The court therefore excluded his testimony, as his "methodology and conclusions fail[ed] to conform to the Court's [] claim construction." *Id.* at \*9.

Likewise, Dr. Madisetti addresses only part of what the claims require—the general presence of technical, business, and workload constraints. He ignores Judge Stark's construction requiring that each VM be evaluated against each host, in each case using rules for each of the technical, business, and workload constraints. Allowing him to testify to his theory will confuse the jury about what the claims actually require.

# 2. Dr. Madisetti's New Infringement Theory Contradicts the Court's Construction Requiring Use of Rule Sets Pertaining to *Each of* the Three Constraint Types

Rather than timely disclosing an infringement theory that meets the claim construction, at his deposition, Dr. Madisetti advanced a brand new theory that contradicts the construction.

According to this new theory, the Each-to-Each Limitation is satisfied even if DRS only uses a rule pertaining to one of the three constraint types and the rule fails, removing the need to use rules for the other two types. (*See* Ex. 50 at 179:3-180:18.) Calling this a "combined constraint," Dr. Madisetti analogized the shortcuts he admitted that DRS takes to testing if an object is a red truck wheel, with "red" representing a rule pertaining to a technical constraint, "truck" representing a rule pertaining to a workload constraint, and "wheel" representing a rule pertaining to a business constraint. (*Id.* at 180:7-18.) First, the test uses the rule pertaining to the technical constraint to check whether the object is red. If this rule fails, Dr. Madisetti theorizes, then "you fail all three [constraints]" without separately checking if the object is for a truck, or if it is a wheel. (*Id.*) Per Dr. Madisetti, despite skipping use of the rules for the "truck" and "wheel," all the constraints are still "evaluated" under the claim language as a result of the failed "red" rule because "it's evaluating a combined constraint." (*Id.* at 180:13-18 ("[I]f you fail the

red, you fail all three."); see also id. at 186:6-187:3, 197:23-198:8.)

This new theory is at odds with Judge Stark's construction of the Each-to-Each Limitation, which emphasized that "each of" technical, business and workload rules must be used in each evaluation (i.e., "in each case"). As stated above, in explaining his construction, Judge Stark specifically noted how Cirba conceded that this limitation "would not be met where an evaluation skips a rule pertaining to even one of the three constraints." (D.I. 1160 at 8-9 (emphasis added).) And in the January 2020 trial, Dr. Madisetti himself testified that skipping a single constraint type for a single VM-host evaluation would mean no infringement. (Ex. 51 at 618:1-8; see also id. at 616:10-618:20.) He specifically provided this testimony with respect to the "spiderweb" graphic that was shown to the jury, in which the highlighted, broken blue line represents a business constraint that is not evaluated. (Id. at 618:9-20; Ex. 22 at DDX-3.3; see also MSJ #3, Section II.A, supra at 11 (reproducing graphic).)

But Dr. Madisetti now insists that the claims' "evaluating" step is satisfied because all three constraint types are allegedly evaluated, even though the rules for some of those constraint types are not *used*. He contends that when a rule for one constraint type fails, and the VM-host evaluation "finds shortcuts" by skipping the rules for the other two, there is still infringement because "if you fail [one], you fail all three." (Ex. 50 at 180:7-18.) In fact, Dr. Madisetti disavowed his prior trial testimony claiming that he "was not referring to this figure," which he didn't "understand at all." (*Id.* at 189:3-190:12.)

This claim is not credible. Dr. Madisetti's prior testimony was clear enough that Judge Stark specifically relied on it, and the accompanying spiderweb graphic, in his memorandum order explaining his construction. Thus, Dr. Madisetti's heel turn not only contradicts his prior testimony, but also Judge Stark's construction and the spiderweb graphic. (D.I. 1160 at 9.) His

new infringement theory should therefore be excluded. *Liquid Dynamics Corp. v. Vaughan Co.*, 449 F.3d 1209, 1224 n.2 (Fed. Cir. 2006) (affirming exclusion of expert testimony as "irrelevant because it was based on an impermissible claim construction" and "could prejudice and confuse the jury"); *Sprint Commc'ns Co. L.P. v. Cox Commc'ns Inc.*, 302 F. Supp. 3d 597, 619-21, 624 (D. Del. 2017) (excluding expert testimony "contrary to the court's claim constructions" as it was "likely to mislead and confuse a jury"); *Personalized User Model, L.L.P. v. Google Inc.*, No. CV 09-525-LPS, 2014 WL 807736, at \*1 (D. Del. Feb. 27, 2014) ("expert testimony inconsistent with the Court's claim construction" was "unreliable and unhelpful to the finder of fact").<sup>7</sup>

# B. Dr. Madisetti Improperly Advances a New Construction of "Virtual Guest"

The accused VMware products from vSphere 7 Update 1 and later do not infringe the '687 patent because they include virtual machines ("VMs") that are never evaluated (known as "vCLS VMs"). In an attempt to get around this, Dr. Madisetti interprets the term "virtual guests" to exclude what he calls "system VMs," limiting it to "customer application/workload VMs." (See Ex. 49, Vol. 2 ¶ 185.) According to Dr. Madisetti, vCLS VMs do not count as "virtual guests" under the claims

(*Id.*; see also Ex. 50 at 206:3-21, 208:3-

15, 212:6-214:6 (characterizing a "virtual machine" as "a typical VM or a virtual machine that would be moved by something like vMotion or handled by DRS," and refusing to acknowledge that system VMs like vCLS VMs are virtual machines).) This is improper claim construction and should be excluded.

The Court has presided over extensive claim construction in this case, and Cirba has had ample opportunity to argue that "virtual guests" should be construed narrowly to exclude system

<sup>&</sup>lt;sup>7</sup> As explained in MSJ #3, Section II.C.3, *supra* at 15, Dr. Madisetti's reliance on the '687 patent's specification for his theory is misplaced.

VMs. But it never did. Instead, it tried to construe "each virtual guest" as "each virtual machine of the plurality of existing virtual guests" (claim 3) or "each virtual machine of the plurality of virtual machines" (claim 7). (D.I. 208, Ex. A at 3-4.) The Court disagreed. (D.I. 356 at 4-5.)

Unfazed, Cirba now attempts to push a new construction through Dr. Madisetti's opinions. This "attempt to introduce claim construction through expert testimony is improper." *Intuitive Surgical, Inc. v. Auris Health, Inc.*, 549 F. Supp. 3d 362, 370 (D. Del. 2021) (citing *Cordis Corp. v. Bos. Sci. Corp.*, 561 F.3d 1319, 1337 (Fed. Cir. 2009)). Dr. Madisetti's opinions that rely on these "belated claim construction arguments" should be excluded. *Id.* 

Moreover, in rejecting Cirba's previous proposed construction for "each virtual guest," the Court also precluded Dr. Madisetti's new one. Giving the term its plain meaning, the Court noted Cirba's attempt to "improperly narrow the set of . . . virtual guests that need to be evaluated." (D.I. 356 at 6.) As the Court made clear, "each virtual machine in the virtualized environment must be compared against each virtual host in the virtual environment." (*Id.* at 5.) If the virtualized environment includes vCLS VMs, they must be evaluated. Even if it were permissible to engage in claim construction at this late stage—and it is not—there is no basis to exclude alleged "system VMs" or any other VMs, as the Court already held. This is yet another reason to exclude Dr. Madisetti's opinions regarding vCLS VMs. *Sprint Commc'ns*, 302 F. Supp. 3d at 619-21, 624 (D. Del. 2017); *Personalized User Model*, 2014 WL 807736, at \*1.

- C. Dr. Madisetti's Source Code Opinions Will Mislead and Confuse the Jury<sup>8</sup>
  - 1. Dr. Madisetti Does Not Provide Any Reasons for His Disagreement with Dr. Nieh's Technical Interpretation of the Source Code

In both his December 20, 2019 report on non-infringement and his follow-up September

<sup>&</sup>lt;sup>8</sup> VMware asked that the Court appoint a neutral expert or technical advisor to analyze the source code at issue. (D.I. 1413.) VMware believes such an expert will find Dr. Nieh's source code interpretation to be accurate and readily recognize the flaws in Dr. Madisetti's analysis.

27, 2022 report, VMware's expert, Dr. Nieh, provided extensive descriptions of how both DRS 1.0 and DRS 2.0 operate at the source code level. (*See, e.g.*, Ex. 52 ¶¶ 115-124; Ex. 53 ¶¶ 100-138.) Dr. Madisetti testified that he disagrees generally with Dr. Nieh's source code analysis. (*See* Ex. 50 at 72:4-18.) But "[t]o be reliable, 'the expert must have good grounds for his or her belief,' not 'subjective belief or unsupported speculation.'" *T.N. Incorporation, Ltd. v. Fid. Nat'l Info. Servs., Inc.*, No. CV 18-5552, 2021 WL 5980048, at \*5 (E.D. Pa. Dec. 17, 2021) (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 742 (3d Cir. 1994)). Dr. Madisetti fails this test and should not be permitted to tell the jury that Dr. Nieh's source code opinions are wrong.

With very few exceptions, Dr. Madisetti does not even articulate his specific disagreements with Dr. Nieh regarding the accused product source code. When asked what he believes is wrong with Dr. Nieh's analysis, Dr. Madisetti could only complain, without explanation, that Dr. Nieh "makes a lot of high level assumptions in every paragraph" and that "he's talking about high level comments." (Ex. 50 at 76:18-77:15.) Even when pressed, Dr. Madisetti could not point to a single factual error in Dr. Nieh's analysis. Complaining that it would "take a lot of time," he instead offered to provide an additional "rebuttal report on those specific issues," confirming that he had yet to perform what he agreed was a fact- and time-intensive analysis. (*Id.* at 75:21-76:5.) During the deposition, the best he could do was criticize Dr. Nieh's *characterization* of the source code, not his explanation of how it works. (*See, e.g., id.* at 81:12-82:23 (disagreeing with Dr. Nieh's opinion that

).) Worse, Dr. Madisetti could not point to any place in his report where he had articulated even these superficial disagreements, as no such place exists. (*See, e.g., id.* at 84:8-89:17 (pointing to conclusory statements in his *opening* 

report, as criticisms of opinions that Dr. Nieh provided *in rebuttal* to that report).) In fact, Dr. Madisetti's October 21, 2022 reply report appears to adopt Dr. Nieh's source code analysis, citing to it as alleged evidence that "DRS continues to evaluate each VM against each host and other VMs by executing certain functions." (Ex. 54 ¶ 39.)

In the rare instances where Dr. Madisetti identifies specific statements that he believes are wrong in Dr. Nieh's source code analysis, he offers no fact-based explanation. For example, while he disagrees with Dr. Nieh's statement that "many of the source code functions that were used in DRS 1.0 are no longer used in DRS 2.0," he does not explain why Dr. Nieh's opinion is wrong. (*See id.* ¶ 43.) He also provides no factual basis for disagreeing with Dr. Nieh's statement that

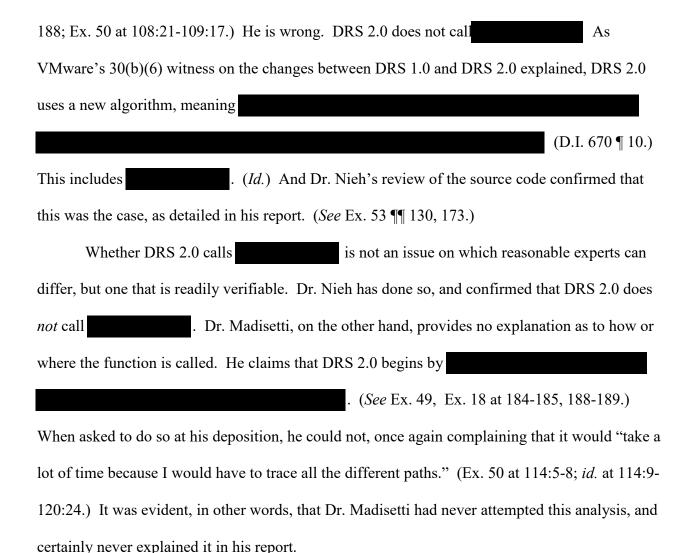
(*Id.* ¶ 46.) Nor does he identify errors in Dr. Nieh's opinions regarding despite claiming to disagree. (*Id.* ¶¶ 77-78.) Rather, Dr. Madisetti provides only conclusory arguments that Dr. Nieh provides insufficient explanations.

Dr. Madisetti plainly does not have any real factual disagreement with how Dr. Nieh has explained the operation of VMware's source code. His reports fail to identify and explain any errors, and he could not fill those gaps at his deposition. Thus, he should not be permitted to tell the jury that Dr. Nieh's source code analysis and resulting noninfringement findings are wrong.

# 2. Dr. Madisetti's Conclusory Statements About the Source Code Are Objectively Wrong

Dr. Madisetti's conclusory opinions regarding source code are often based on factual assertions that are objectively wrong. These opinions must not reach the jury because they are not based on "sufficient facts or data" and "reliable principles and methods," as required by Rule 702.

For example, Dr. Madisetti claims that the 2.0 version of Compute DRS—a program at the heart of his infringement theories—calls the function . (See Ex. 49, Ex. 18 at



In short, Dr. Madisetti's error-ridden source code opinions are contrary to the facts of the case and reflect the lack of reliability in his source code review methodology. The jury should not hear them. *Parallel Networks Licensing, LLC v. Int'l Bus. Machines Corp.*, C.A. No. 13-2072-KAJ, 2017 WL 1405155, at \*2 (D. Del. Apr. 17, 2017) (requiring "reliable methodology in the analysis and an adequate 'fit' between the offered expert opinion and the facts at issue").

#### MOTION TO EXCLUDE EXPERT TESTIMONY (BERGMAN)

Mr. Bergman's opinions overstate the recoverable damages. His calculation is inconsistent with controlling law, has no adequate connection to evidence, and follows arbitrary methodologies. Mr. Bergman's opinions are riddled with flaws and should be excluded.

#### I. FACTUAL BACKGROUND

In calculating damages for VMware's alleged infringement of the '687, '492, and '459 patents, Mr. Bergman offers two different methodologies based on the accused product. For products containing DRS, Mr. Bergman calculates reasonable royalty damages applying a per unit rate to all sales of accused products. For vROps, Mr. Bergman calculates lost profits. In total, he claims that VMware owes in damages.

#### II. THE COURT SHOULD EXCLUDE MR. BERGMAN'S UNRELIABLE OPINIONS

## A. Mr. Bergman Fails to Tie DRS Damages to Use of the '687 Patent's Method

The remaining asserted claims of the '687 patent are method claims. When method claims are at issue, "the damages base should be limited to products that were actually used to perform the claimed method." *Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*, 30 F.4th 1339, 1357 (Fed. Cir. 2022). To correlate damages with the extent the method is practiced, the court should "limit[] damages to sales of [accused products] that performed the steps of the claimed method." *Cardiac Pacemakers, Inc. v. St. Jude Med. Inc.*, 576 F.3d 1348, 1358 (Fed. Cir. 2009).

As Judge Stark noted in ordering a new trial, "Plaintiffs' evidence of infringement was, at best, weak." (D.I. 946 at 11.) Practicing the claimed method would be an exacting exercise. Cirba's infringement theory requires "evaluating each virtual machine against each virtual host and other virtual machines, in each case using one or more rule sets pertaining to each of technical, business and workload constraints." (D.I. 1160 at 5.) Even Cirba's Mr. Hillier admitted that evaluating each-to-each "would rarely be the case" for small datacenters and be "wildly impractical" in large ones. (Ex. 55 at 358:24-359:7; 644:24-646:2.)

Mr. Bergman's royalty base consists of 100% of VMware's unit sales of accused products and is not tied to use. While the law does not require a precise finding of use, it still requires *some* evidence that "estimate[s] the amount or percentage of sold devices that were actually used

admitted that he has never "seen any evidence at all as to the actual number of people who are on a day-to-day basis performing the methods of the '687 patent." (Ex. 56 at 119:17-120:19.) He also confirmed that he did not ask Dr. Madisetti about this. (*Id.* at 57:20-58:10.) And though he testified that for usage, "the only way that [he's] aware of to actually know . . . is by somehow getting that information from the customer" (*id.* at 50:8-51:12), Cirba did not do so. It deposed but did not ask about usage. Cirba withdrew its subpoenas directed at . (D.I. 931; Ex. 56 at 58:11-60:1.) Cirba cannot justify the absence of evidence or Mr. Bergman's conclusion that the extent of use is "an unknowable question." (*Id.* at 50:13-51:12.) Mr. Bergman's royalty base is not tied to infringing use, and thus should be excluded.

# B. The Court Should Preclude Mr. Bergman from Opining on DRS Damages for Direct Infringement of the '687 Patent

Cirba asserts that VMware directly and indirectly infringes the '687 patent. Mr. Bergman does not conduct a separate analysis for direct infringement. (Ex. 57 at Sec. 1, ¶ 197; Ex. 59 at 66:7-19). Mr. Bergman admitted that he did not know how often VMware itself used the asserted claims. (Ex. 56 at 42:17-43:23.)

In *Packet Intelligence LLC v. NetScout Sys., Inc.*, 965 F.3d 1299 (Fed. Cir. 2020), the Federal Circuit considered Mr. Bergman's opinion on damages for direct infringement of method claims and rejected his view that the plaintiff could "simply count sales of the software accused of infringing the [apparatus] patent as sales of the method claimed in the [method] patents," because "[m]ethod claims are not directly infringed by the mere sale of an apparatus capable of performing the claimed process." *Id.* at 1314 (cleaned up). The Federal Circuit noted that Mr. Bergman "applied a calculated reasonable royalty to revenue from [defendants'] sales of the . . . . products" and that "[t]he damages base was not tailored to any alleged internal use of the claimed

methods." *Id.* at 1315; *see also TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1291-92 (Fed. Cir. 2020) (reducing direct infringement damages award to zero because plaintiff offered a singular damages presentation for both direct and indirect infringement based on "sales of accused products"). Mr. Bergman repeated that mistake here.

Mr. Bergman's explanation that "VMware's testing, demonstration, and internal uses of the infringing VMware technology enables its ability to provide the Accused Products to customers" is of no help. (Ex. 57 at Sec. 1, ¶ 197.) *See Parallel Networks Licensing*, 2017 WL 1405155, at \*2-3 (rejecting expert's reliance on product sales to calculate direct infringement damages based on benefit from product use because "he does not indicate how the value derived from use would translate into a royalty"). The Court should exclude Mr. Bergman's opinion on damages for direct infringement.

# C. Mr. Bergman's DRS Damages Apportionment Analysis for the '687, '492, and '459 Patents Is Arbitrary and Speculative

"A patentee is only entitled to a reasonable royalty attributable to the infringing features." *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 904 F.3d 965, 977 (Fed. Cir. 2018). In apportioning damages to the incremental value attributable to the patented invention, the expert must offer "credible economic analysis to support that conclusion." *LaserDynamics*, *Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 69 (Fed. Cir. 2012).

Mr. Bergman's opinion that "a reasonable percentage of DRS value attributable to the '687 patent is at least of the total value of DRS" does not pass muster. (Ex. 57 at Sec. 1, ¶ 303.) Neither does his application of this *exact* opinion to the '492 and '459 patents, where he attributes the same of DRS value to two *different* patents. (*Id.* at Sec. 2, ¶ 116.) While Mr. Bergman generally discusses apportionment (*id.* at Sec. 1, ¶¶ 281-304), there is only one basis for the figure—Dr. Madisetti's contention that the value of the '687 patent is

(Compare id. Sec. 1, ¶ 303, with id. Sec. 1, ¶ 285.) But even Dr.

Madisetti did not stand behind this adjustment. (Ex. 58 at 259:14-24 ("[T]hat's his opinion.

I just told him there are three important technical contributions and he drew the rest.") See Apple

Inc. v. Wi-LAN Inc., 25 F.4th 960, 975-76 (Fed. Cir. 2022) (affirming new trial on damages

because damages expert should not have presented an opinion based on Dr. Madisetti's unreliable testimony about the incremental benefits of the patented technologies).

As in *Exmark*, Mr. Bergman's inability to explain "the extent to which [each feature] factored into the value" or the "royalty rate" renders his royalty rate "speculative, conclusory, and devoid of any analysis." *Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prod. Grp., LLC*, 879 F.3d 1332, 1348 (Fed. Cir. 2018); *LaserDynamics*, 694 F.3d at 69 (rejecting one-third apportionment that "appears to have been plucked out of thin air based on vague qualitative notions of the relative importance").

# D. Mr. Bergman's vROps Damages Calculation of Lost Profits for the '687, '492, and '459 Patents Is Improper

IP cannot claim lost profits as a matter of law. "[L]ost profits must come from the lost sales of a product or service the patentee itself was selling." *Warsaw Orthopedic, Inc. v.*NuVasive, Inc., 778 F.3d 1365, 1376 (Fed. Cir. 2015). And a patentee cannot "claim the lost profits of its non-exclusive licensee." *Poly-Am., L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1310-12 (Fed. Cir. 2004); Novozymes A/S v. Genencor Int'l, Inc., 474 F. Supp. 2d 592, 604-05

(D. Del. 2007) (same). As Judge Stark recognized, "IP does not sell or offer for sale products and services." (D.I. 946 at 8.) IP thus cannot claim lost profits. *Warsaw*, 778 F.3d at 1376. Nor can Inc. claim lost profits for the '492 patent as a nonexclusive licensee. *See* 12(b)(1) Mot., *supra* at 24-26. *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1553-54 (Fed. Cir. 1995) (no damages claim for non-exclusive licensee). The Court should exclude Mr. Bergman's lost profits opinions.

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#### **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that on November 29, 2022, a copy of the foregoing

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